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PATHOLOGICAL RESEARCHES.*

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The elemental constitution of the various organs of the body, the processes of development and growth, and the constant changes which occur in ordinary waste and repair, and the laws of their evolution and of their general and special functions, in health, belong to histology and physiology. All changed and disordered physiological and anatomical conditions belong to pathology. It is impossible to define the pathology of insanity in distinct terms, as it is still a subject of investigation. The boundary of our knowledge is not only limited, in this field, but, as any one will find who will take occasion to read the subject up, the nature of the morbid changes are still not satisfactorily solved. Indeed those changes are just what we are investigating, in the hope of substituting positive knowledge, by examination of the actual lesions, for the various speculative theories.

In a paper on pathology, read before the Association two years ago, I endeavored to present the general,

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morbid processes observed in insanity. I wish now to bring before you the nature of the changes which occur, and the anatomical character of the products of the pathological changes, embracing all stages and conditions of the disease, from acute mania to the most chronic forms of insanity; also general paresis and syphilization of the brain. The components of structure, are, you are all aware: 1. Blood vessels. 2. Lymph spaces and canals. 3. New cells. 4. New fibres. 5. Neuroglia, or connective tissue.

The pathological laws to which the brain is subject, are the same that obtain in all other parts of the organism; that is, the processes are the same everywhere, but the products are modified by the cell structure of the different parts involved; and the cell being, indeed, the ultimate element, as far as we know, upon which life depends, its alterations are of the highest possible moment.

Infiltration and involution are the terms used to express certain changed conditions in the tissues. These two terms characterize the morbid phenomena and morbid processes of which I will speak. Infiltration is in one sense a passive process. That is, its products are normal, but in excess, and the deposits are out of place. The deposits are fatty infiltration, calcification, pigmentation and amyloid bodies. These, as you will understand, are more or less normal products. It is proper to assume that there must be some loss of vital property, which renders the tissue or organ powerless to resist the invasion of this process. These deposits, we know, occur in the gradual failure of age. Infiltration is therefore more in the nature of a chemical process. Involution is, on the other hand, a physiological process, but a deviation from the normal mode, and the type of structure is changed. In involution, therefore, the

degeneration is in the nature of metamorphosis of the tissue, and is not a deposit. The change always commences in involution, in the nucleus of the cell, the germinal point itself, and a cell of a different character, of an entirely different type is developed. The exception to this is colloid involution which does not commence in the nucleus. In infiltration the deposit is never in the nucleus, but always commences in scattered points in the protoplasm of the cell. In involution the cell is inevitably lost by its transformation into another and different structure. In infiltration the cell is only embarassed and distorted by deposition of foreign matter, which may be re-absorbed; the nucleus or germinal point of the cell not being affected. In infiltration, the new deposit has no inherent life—it is powerless to increase itself—it is only increased by aggregation. In involution, the new formation is itself a living cell, and capable of reproduction, or what is called proliferation. This proliferation or increase, is often very rapid. Now, when we speak of fatty degeneration, for instance, of the ganglion cells of the brain or cord, or of the cells of the muscular fibres of the blood vessels, there is great difference between the form of fatty infiltration and fatty involution.

Now we shall examine these more particularly. In considering the conditions of degeneration and decomposition of the tissues of the human body, we must always keep in mind certain organic laws, which are concerned in the normal development and formation. Each organ is built up of cells of different characters, forms and functions. These cells, from their genetic unity, their mutual dependence and reciprocal action, constitute what we call organic life. They act upon and with each other, as parts of a totality, and though so different, are really members of one family, in their

mode of origin, their life, and their processes of decay. As soon as this harmony of action is disturbed or lost, that is, as soon as this peculiar mutual dependence and reciprocation are interfered with or cease, health is disturbed or death occurs. These results—sickness and death—we then suppose to be the consequence of those altered relations and anatomical changes.

I shall first endeavor to bring before your minds the anatomical changes in the structure of the tissues. Bear in mind that life consists of continual change of constituents, in its development, growth and maintenance, and also in its decay; that the life of the body, as a whole, depends on that of the several organs, and that the physiological activity of these rests upon the life of the cells of which they consist. No change of constituents occurs without being followed by change of forms; and no change of forms occurs without some alterations being manifested in the life. So, it will be observed, that the normal changes manifest themselves in the functions of the organs. So, also, changes are manifested in altered functions under anatomical changes in the constituted tissues which enter into their composition. The tissue changes produced by age, and which would seem to be the natural, or, so to speak, normal mode of decay, are therefore, not only interesting, but of the highest importance to the student of histology. Indeed, it will be observed that those produced by disease are quite similar in character. As those of age gradually bring about the normal death of the whole organism, so we find conditions similar, which, so to speak, are premature senescence, and which lead to the gradual death of organs and tissues by successive involvement of parts and progressive changes. The gradual progress of insanity, after certain morbid processes are set up, would go to sustain the view.

In considering anatomical changes of tissues, we must distinguish between those conditions in which death of the tissue, has preceded the changes, and those in which the changes have occurred prior to the death of the tissue. The former are known as necrosis, mortification and gangrene, and are marked by a more or less complete dissolution of the organic structure. Here then is destruction of form and composition, and, in certain cases, dessication or drying up, under the action of simple chemical and physical forces.

Notwithstanding all this, the parts affected, mainly owing to an entire interruption of nutrition, may at the same time be unusually rich in blood. Here, however, the condition of the afferent arteries may be the obstacle to the supply of blood, and we have anæmia in consequence of the interruption of the circulation in the capillary system. These tissues being thus cut off from the nutritive fluid, and practically separated from the life of the whole organism, a chemical action is set up and decomposition of the tissues takes place, which is sustained by the large amount of water, about eighty per cent., which the normal organism contains. Now, this process is marked by the dissolution of the organized albuminates, and the formation of the most varied chemical compounds, which differ according to the seat of the destruction, and the products which are deposited, as crystallized or amorphous matter, liquids or gaseous bodies, which diffuse themselves into the surrounding tissues. This is the process of complete mortification. The presence of foreign living organisms are a cause of partial and local mortification. Not only the so-called vibriones, the bacteria, the botrytis, the aspergillus, &c., which are found in gangrenous conditions of the various organs, and even in the blood itself are causes, but also the processes of

life of the trichina and the great variety of the entozoa. Mechanical action, as concussion, crushing, &c., may properly be mentioned as a cause, and not an uncommon one, of necrosis or local death of tissue. Now, in all these instances, as before stated, the death of the tissue, that is partial or entire interruption or intermission of the function in the part, precedes the anatomical changes.

In the following conditions, the changes precede the functional impairment or death. There are cases where there is gradual but final extinction of function, by a gradual but entire transformation of the tissues affected, into other tissues, as in cancer; and other cases when the changes are only transient, or when they are limited, in which we have modification of function, as in inflammation; and again, there are cases when the changes are progressive, but so slight as not to impair the function notably, though continuing through life, such, for instance, as rheumatic deposits. Still, even in such cases as the latter, function is impaired, and the parts will not endure strain.

As we have already stated, the modes of impairment and death of tissues are designated under the terms, infiltration and involution, which I have already sufficiently explained. I have said that the character of the conditions of infiltration is rather that of a passive change. The parts affected preserve in the main, the external form even in advanced stages, and the physiological action rarely ceases entirely. However, in proportion to the degree of changes, the form, in all cases, must be altered and the function disturbed. The processes in infiltration may be defined in quite an exact manner, as they are so largely chemical.

While the nutritive constituents, dissolved in the fluids, which pass continually through the organs and

cells, in the ordinary progress of life, show no traceable influence of their action and presence, as the constitu ents are taken up and utilized; certain other materials, normal or abnormal constituents, which are retained in the cells and described as a precipitate upon a filter, would be seen at once. They leave the trace; they can not be appropriated. However, this precipitate is to be con sidered, whether or not as produced by the action of the cells themselves, it is a combination of certain albuminates, contained in the protoplasm of the cells affected, with certain materials of the nutritive fluids. In fact, there is probably an adulteration of the nutritive fluids, a dyscrasia, which manifests itself by producing the same chemical and anatomical changes in various and different parts of the organism, as we see in fatty and other deposits. In some instances, however, the deposits are purely local. However, all organs, tissues and cells, are not equally susceptible to the production and retention of peccant material.

There are now recognized four different kinds or conditions of infiltration: that is, the amyloid, calcification, pigmentation, and the fatty infiltration.

I. The amyloid infiltration is a condition first pointed out by Virchow, and so named from the re-action of its products, which is similar to that which takes place in vegetable starch when treated with iodine, and from the microscopic appearance of its deposits. These amyloid deposits stand, however, in a very limited relation to that well known product of vegetable life. According to chemical analysis the amyloid substance belongs to the large class of the *albuminates*. An albuminate, however, with this prominent characteristic, that it is always near the point of becoming solid, more so even than the fibrinous substance of the blood. On analyzing the amyloid infiltrated tissues, the cells

are found enlarged from one-third to twice their normal size, and homogeneous, colorless and translucent. The nucleus is rarely recognized in the advanced stages. Concentric stratified bodies will be found in place of cells. Sometimes, as in the lining membrane of the ventricles of the brain, these amyloid bodies appear in an enormous amount, scattered through the tissues; they are also abundant in grey atrophy of the brain.

II. The second condition of infiltration is that of calcification, which is the impregnation of the tissues with phosphate or carbonate of lime, in a solid form, and also in combination with albuminates. The lime salts are soluble in liquids which contain carbonic acid, and belong to the normal constituents of the nutritive fluids, and are indispensable substances for the preservation of a large class of the tissues, as the bones, &c. An abnormal disposition of these salts must be generally considered as due to local causes. How far the obstruction of the lymph capillaries, and the lymph spaces, which seem to serve as drains for any excessive amount of nutritive fluids and constituents, may be connected with these abnormal deposits, is still a question with physiologists. However, it is well known that the bodily textures in which calcareous impregnations occur normally, as the osseous tissue, the membranes of joints, &c., are entirely without lymphatic vessels. Morbid, or pathological calcification, therefore, occurs more as a secondary production in consequence of inflammation and pathological nerve formations, as in gout; however, the principal seats of this deposit are the vessels and connective tissue, the cellular and glandular tissues, the muscles and the cartilages. It is most common as the result of age; indeed it would seem to be a normal result of senescence. In the earlier stages, the deposits of lime are comparatively harm-

less, or at least they are easily borne by the tissues, if not excessive. The forms of the tissues are retained in their outlines, and it is only in the more advanced stages that the physiological functions of the parts are seriously interrupted, or cease entirely. When large masses or secretions of calcareous character occur, we generally find some pathological nerve formation as the foundation. They have often as a nucleus some mechanical substance; deposits in kidneys, bladder, lungs, &c.

III. Pigmentation is a process of infiltration of a pathological character quite similar in many respects to calcification of tissues. From our present knowledge of the chemical nature of the coloring matters infiltrated into the tissues, or found there, there can be no doubt that they are derived from a pre-existing albuminous compound, the hæmatin, or coloring matter, of the red corpuscles of the blood. The hæmatin is combined with a colorless albuminate, globuline or crystalline.* In pathological processes, then, as in the gradual changes of advanced life, when deposits occur, we may presume that other cells, also, as well as those of the liver, &c., may have or acquire, the property of introducing or separating the coloring matter from the serum of the blood, and of condensing it as a deposit in their structure. The material is always present in the blood. In the majority of cases it is probably due to local disturbances in the circulation, especially to abnormal and persistent accumulations of blood, as in hyperæmia and stasis, and particularly by extravasations, in small areas, or capillary hæmorrhages, in which there is repetition of the hæmorrhage for several days. The blood corpuscles, thus cut off from the general current, become

*The hæmatin, as is shown by Valentine and Staideler, is the radical base of the bile coloring matters, the coloring matter of urine also, giving all the scale of colors from red and yellow to brown and black, which we find in the various pigmentary impregnations.

discolored, and this altered hæmatin or hæmato-globuline is secreted in a soluble form, and taken up by the cells of the surrounding tissues. Hence the frequent occurrence of pigmentation of the ganglion cells of the nervous system, due, as remarked, to frequently repeated hyperæmic states, as the pigmentation in the medulla, in epilepsy, where there are good reasons to suppose the existence of capillary hæmorrhage, from the symptoms. These phenomena are still more strikingly associated in the progress of general paresis, in which we see marked pigmentation. The cells are more frequently pigmented through the intercellular substance, and the fibres, and the homogeneous membranes. In pigmentation, however, the nucleus remains, so that we are probably justified in concluding that the cell function does not entirely cease in this form of infiltration. How far the disturbance of function may occur, we can not know, except by further investigation.

IV. The fourth, and perhaps the most important condition of infiltration is the fatty. The condition of fatty infiltration of the tissues, as heretofore stated, is clearly distinguished from fatty involution. The occurrence of fatty globules and deposits in the cells, is simply the presence of a sufficient amount of this normal constituent. But the fat thus retained in the protoplasm of the cell clearly indicates a pathological condition. The fat is first deposited in small shining globules, as seen under the microscope, which, in further advanced stages, flow together and constitute large drops of fat. These accumulations often so increase as to press the nucleus and protoplasm of the cell aside, so that a single large globule will sometimes fill its entire cavity; however, when the nucleus remains, the fat may be absorbed and the nucleus resume its functions. The question would arise from what source

have we this quantity of fat? In fatty dyscrasia the blood shows signs of change, the serum is opalescent, tinted and emulsion-like. Fats are removed from one part of the system and deposited in other parts, a fatty metastasis. Local fatty infiltrations are generally accompanied by an atrophy of the parts involved, and a general or local diminution of the chemical activity. This is so in a marked degree in fatty infiltration in muscles. The physiological consequences of fatty infiltrations are very different according to the organs and tissues affected, While a liver whose cells have undergone those changes, has not entirely lost its power of yielding bile, or while a fatty infiltrated vessel still resists the pressure of the blood current, and thus has some action; the fatty muscle or nerve fibre seem at once to show defect, and finally the physiological power is extinct.

In involution the pathological processes are widely different from those of infiltration, which we have just discussed. These were pointed out generally in the early part of this paper. In involution the changes are not passive and retrogressive, as in infiltration, but active and progressive. In involution we have changes not only in the protoplasmic contents of the cell, but in the cell itself; an actual transformation into a cell structure of a different character and form. While the metamorphosis progresses, the functional life of the cell gradually ceases.

As heretofore stated, the change in involution commences in the nucleus, or even in the nucleolus of the cell, and thus it would seem that this elemental or germinal point was concerned in the morbid action in the very beginning, in this process of degeneration. There are four recognized forms of involution: 1. Fatty metamorphosis. 2. Cloudy swelling. 3. Mucoid soft-

ening. 4. Colloid degeneration. In regard to the chemistry of these degenerations there is very little known. In fatty involution we have first the separation of fat in minute globules from the albuminous protoplasm of the cell, with which in the normal state it is intimately combined. In cloudy swelling there is coagulation of the albuminates of the cells, and the protoplasm is transformed into a minutely granular substance, while at the same time the nucleus commences to swell by imbibition into an irregular body. In mucoid softening, contrary to this the albuminates become soluble. In colloid degeneration, there is coagulation which forms a body of a gelatinous consistence. These are the general characteristics in these several changes in involution.

I. The anatomical appearance of a cell undergoing fatty involution may be thus described. The nucleus of the cell loses its smooth, shining and transparent appearance, and the nucleolus is observed by an accumulation of finely divided, granular, fatty matter heretofore spoken of. Soon afterwards it swells up, and then, instead of seeing one nucleolus in the nucleus, you will see two or three small spherical nucleoli formed. The nucleus now fills out until it occupies the whole space of the cell, and divides into two, three or more granulated masses, which rapidly enlarge, and finally rupture the membrane of the cell. Then you see distinctly the several granule cells. These, in a limited degree, may again multiply by division, a process, however, which soon ceases, leaving the already formed granular masses for further changes. The fat of the granule cell crystallizes, or the granular corpuscle itself disintegrates, and a fatty ditritus is formed, without cell life or organization. These now become the nidus for local softening. You will recall here the fact that the

fat in infiltration remains in the cell, while here, in involution, it is at length outside, and this is fatty degeneration.

II. The condition of a cell in cloudy swelling, in consequence of the coagulation of the albuminates as before stated, resembles very much the phenomena observed in cells in the condition of *rigor mortis*, where the protoplasm, also coagulated, becomes immovable. But there is this striking difference. In cloudy swelling the nuclei show an augmented activity, as in fatty metamorphosis. They are found enlarged, and the whole cell is puffed out. (These granules are not yet fatty, but are soluble in acetic acid, and need not, therefore, be mistaken for the first stage of fatty involution,) and the nucleus soon divides. Afterwards, it passes into fatty metamorphosis, thus producing the destruction of the cell. In some cases, however, the process recedes, and the cells return to their normal constitution.

III. Mucoid softening, the third condition of involution, is a process in which the tissues undergo a gradual liquefaction in consequence of the albuminates passing, under a pathological process, from a solid to a soluble condition. These albuminates, under this modification, are collectively called mucus, a substance which has an extraordinary capacity of swelling by imbibition, and thus forming a substance presenting all grades of consistency from that of tough jelly to a thin synovia. This modification is also marked by another quality, an entire incapacity for diffusion. This peculiarity is of the greatest importance. When a tissue has undergone these changes, the product will remain where formed, until it is either mechanically removed or is converted into another substance capable of being absorbed. When the mucus remains, it will be at all

times likely to enter into the composition of new pathological structures and textures, among which the so-called mucous tissue is the most prominent. The softening of the cartilage is illustrative of mucous tissue. You will bear in mind that this mucus cannot be absorbed by capillaries, or be in any way taken into circulation, as its consistency forbids this.

IV. Intermediate, between mucoid softening and cloudy swelling, according to its anatomical appearance, is the fourth condition of involution, colloid degeneration. The colloid substance is a colorless, transparent globule, of a fat-like refraction, and a trembling gelatinous consistence. Colloid bodies are developed within the cells. The protoplasm takes on uniformly a homogeneous and strongly refractive state, and the nucleus is pressed to one side, against the enveloping membrane of the cell, as the globules grow, and at length the colloid mass or globule, loosening itself from the place of its formation, takes the place of the cell. Thus freed, it continues to enlarge, and pushes aside the surrounding tissues, and there is formed there a kind of smooth walled cyst, or there may be a system of anastimosing or intercommunicating cysts, as in the so-called alveolar cavities.

We proceed now from these general considerations of pathological formations, to those which have been found in the brain and nerve system. The nervous centers are the most complicated structures, the seat of the most obscure phenomena, and so protected from physical exploration that their study is necessarily surrounded with difficulties. From examination of cases of unmistakable insanity, we find that with the exception of colloid degeneration, the conditions of involution are more frequently found in acute insanity, while in the chronic and progressive stages of the disease, conditions of infiltration prevail.

(We leave out of consideration pathological nerve formations, such as tumors, cancers, &c.)

Commencing in the vascular system, inducing states of hyperæmia and consequent anæmia, we have the greater part of the first causes of the histological changes observed. The conditions of dyscrasia and their consequences are here to be included. The hyperæmic state and local stagnation of the blood must produce a saturation, so to speak, of the tissues with fluid. We have the formation of aneurismal dilatations of the vessels as one condition impairing their walls, and producing pressure; as a consequence of this, we may and do have dissecting aneurisms, or pouring out from the vessel, through its ruptured wall, a quantity of blood into the adventitia. The adventitia may also give way and we may then have this blood free, or a hæmorrhage may at once occur, of considerable amount. Now, in those conditions it is plain we have the preparative states for inflammatory action and softening, and at least local destruction of the part.

Again, if a small area of brain matter becomes hyperæmic, the blood stasis in the arteries and capillaries may not only diminish the supply of nutritive fluid to the parts and the cells with which they are anatomically related, but this stasis may continue and become so complete as to entirely deprive the tissues of fluid. In the first condition we have at once an anæmic state, from defective supply, and this condition may continue, and when there are numerous areas thus affected, may induce a quite general anæmic state. The consequences of this will be diminished production of nerve force, embarrassed cerebral action, and general physiological disturbance. Out of such conditions we have the commencement of insanity. If the second condition occurs, that of complete stasis or embolic packing, and

the circulation is entirely arrested in the area affected, then the processes of involution are set up, and the vessel, with its contents, is transformed into fat granules, as we have found on examining recent cases, where death took place not only in the first stages of the disease, but accidentally, or at least not as a consequence of progressive insanity, or any acute inflammatory process in the brain. So also the cells themselves and the neuroglia and the nerve fibres unnourished, must undergo some one of the processes of degeneration.

These changes embrace the entire range of pathological anatomy and in chronic cases, all these may be found. These products bear a relation, in some degree, to the progress of the disease. Their order would seem to be: 1. The vascular system. 2. The connective tissue, or neuroglia. 3. Ganglion cells and new fibres. The etiology of these changes, that is the cause and history, as far as we have knowledge is as follows: first, hyperæmia then anæmia. In considering the changes which take place in the vascular tissues, we must look at the structure and distribution of the vessels in the various parts. Each part of the nervous center has its peculiar vascular arrangement, and the consequences of irregular circulation are modified thereby. The parenchyma of the reticulated structures of the membranes of the brain, requires but little nutrition itself, but the other membranes, the arachnoid, the pia mater, are a net-work of vessels, large and small, with abundant space for dilatation in their delicate and loose structure. This structure, therefore, presents favorable conditions for setting up inflammatory processes, for their extension, and for exudation, and we have these conditions as the result of pathological disturbances in the circulation, as meningitis, &c. The dura mater is compact in structure, and there is but little space

in its parenchyma for inflammatory processes and hyperæmic conditions; exudations are mainly found on its inner surface.

The brain substance itself is compact, and its vessels are almost entirely of the smaller caliber, and serve only for the purpose of its nutrition. The vessels, too, are far more numerous in the grey cortical portions than in the white or fibrous structure. The vessels of the brain tissue also have little connection as a system of vascular distribution. Each area of nutritive vessels represents small territorial areas of tissue. States of hyperæmia are therefore more likely to occur in limited sections of the brain, owing to this character of vascular supply. The vessels imbedded in the dense nervous tissues, are also, except in a very limited degree, little capable of distension and contraction. The enveloping sheath or adventitia, with its contents, (the so-called perivascular sheath and perivascular spaces,) are the only channels for allowing distension from superabundance of fluids; hence the favorable conditions for impacting the vessels and impeding or arresting the circulating fluid. This structure is also unfavorable in its anatomical arrangement for receding processes, or removing of the pathologically increased quantity of blood or other products, as deposits or exudations.

This structure of the nervous centers, as must be apparent, in their relation to the heart and circulation, must favor exudative processes, dilatation of vessels, aneurismal conditions, as the miliary aneurisms of Charcot, dissecting aneurisms of Virchow, which are prominent among the conditions which initiate local cerebral hæmorrhages. They also, by pressure on the surrounding tissues, produce disturbance of functions, and pathological changes in the otherwise unaffected tissues, and thus diffuse or extend the mischief; hence

the facility with which, in limited sections of the brain and cord, a hyperæmic state, or conditions of fullness of vessels may be developed by increased or diminished heart action under feeble conditions of nerve energy. In ordinary cases of nervous prostration, especially connected with hysteria, we frequently see those hyperæmic localizations in the eyes, face and neck, and sometimes even well marked ecchymosis from rupture of capillaries. These hyperæmic conditions continuing, we have stasis of blood in the capillary vessels and a thrombic condition of the vessels by the gradual impaction with blood corpuscles. This state more seriously interferes with the supply of the blood, and anæmia is set up in the parts of the tissue which those vessels supply. Finally, this continuing, the vessels having still further filled, an actual state of embolic packing takes place, and the supply is completely cut off in the vessels affected. Thus the anæmic state is increased. These conditions, as our investigations have shown, occur not in isolated vessels in those locally hyperæmic areas, but in a large proportion of the vessels. In the embolized vessels there is no longer function, and they are in a condition for states of fatty involution, or the other processes of degeneration mentioned. So also are the neuroglia, the nerve cells, and nerve fibres implicated, as we have distinctly seen through the microscope, in cases examined.

This summary of anatomical changes, and the pathological physiology associated therewith, brings us to the description of certain products or changes of the brain structure in insanity, which we shall endeavor to illustrate. It is proper to remark that in dealing with such delicate tissues and such minute objects, already largely magnified on the photographic plate, and some of them, when thrown on the screen, more than twenty thousand

diameters, you must not expect to see the whole field well defined. An object, as a capillary vessel, or a process of a ganglion cell, or a nerve fibre may be shown by a magnifying power, under which it would be difficult, if not impossible, to show at the same time the more minute structure. This obliges us to show a larger number of slides.

The following were presented from photo-micrographs on glass, by aid of the magic lantern, to illustrate the address:

I. Vessels.

1. A curved capillary, with its lymphatic sheath, distended and infiltrated with fatty and pigmentary masses, from the upper central convolution of the brain—in paresis.

2. Dissecting aneurism in a small artery of the brain. Rupture of the internal coat, and effusion of blood into the adventitia.

3. Thrombus in a small artery of the brain, organized and attached to the lower wall of the vessel, filling two-thirds of its lumen.

4. Embolism of a capillary from the corpus striatum—in acute mania.

5. Embolism of three branches of a capillary from the corpus striatum—in acute mania.

6. Fatty involution of the nuclei of the spindle shaped cells of a capillary. The cells outlined by treatment with a solution of nitrate of silver—acute mania.

7. Fatty involution of the nuclei of the spindle shaped cells of a capillary, further advanced stage, division of the nuclei—acute mania.

8. Fatty involution of the nuclei of the spindle shaped cells of a capillary, third stage, disintegration of the vessel—acute mania.

9. Fatty involution of the nuclei of the muscular coat of an artery of the brain, development of granule cells.

10. Fatty involution of the nuclei of the adventitia of a vein, and developed granule cells.

11. Chain of granule cells with the residua of a disintegrated capillary.

12. Cluster of granule cells with residua of disintegrated capillaries.

13. Complete fatty involution of an artery and infiltration of the same, with granule cells.

II. Nerve cells, nerve fibres and neuroglia cells.

1. Healthy ganglion cells from the anterior horn of the spinal cord.
2. Healthy ganglion cells from the posterior horn of the spinal cord.
3. Healthy pyramidal cell from the third layer of the upper central convolution, with a connective tissue cell attached to it.
4. Two pyramidal cells of the third layer, in the first stage of fatty involution.
5. Complete fatty involution of a large group of pyramidal cells from the second and third layer; the cells are transformed into chains of pearl-like granules, so arranged that they still resemble the shape of the cell; the processes are disintegrated.
6. One of the cells more enlarged.
7. Healthy pyramidal cell from the third layer of the third left frontal convolution.
8. Pyramidal cells from the same region with two nuclei of the neuroglia, in complete fatty involution.
9. Pyramidal cells from the third layer of the upper central convolution in a state of cloudy swelling.
10. Healthy connective tissue cells, the so-called Deiter's cells.
11. Group of Deiter's cells in a state of cloudy swelling.
12. Transverse section, through the lateral columns of the medulla oblongata, showing the fibres and their axis-cylinder, in health.
13. Transverse section through the same region in fatty involution—paresis.
14. Longitudinal section through the same region in fatty involution of the nerve fibres—paresis.
15. Colloid bodies in large ganglion cells of the medulla oblongata.
16. Section through the root of the nervus trigeminus, with colloid bodies.
17. Section through the medulla oblongata near the raphé, with colloid bodies.
18. Fatty infiltration of a large motor cell of the spinal cord.
19. Pigment infiltration of two ganglion cells of the posterior cornu of the spinal cord.
20. Amyloid bodies from the ependyma of the lateral ventricles.

21. Calcification of pyramidal cells of the third layer of the upper parietal convolution—in melancholia.

22. Concentric arrangement of oblong nuclei of the neuroglia, in first stage of calcification.

23. Concentric arrangement of oblong nuclei of the neuroglia, in second stage of calcareous infiltration in the center of the concentric layers.

24. Concentric arrangement of oblong nuclei of the neuroglia, in state of complete calcification

25. Concentric arrangement of oblong nuclei of the neuroglia, a very large mass breaking up.

26. Transverse section through the anterior quarter of the medulla oblongata at the level of the fully developed olivary bodies; showing a part of the raphé, the left olivary body, the nucleus of the lateral columns, the left anterior pyramid.

27. The same in a case of paresis, showing sclerosis of the anterior pyramid.

28. The sclerosed patches more enlarged.

CASE OF MRS. JANE C. NORTON.

BEFORE THE STATE COMMISSIONER IN LUNACY.

The People, on complaint of JONATHAN T. NORTON, *against* THE SOCIETY OF THE NEW YORK HOSPITAL.	*Tort to a Lunatic. Contributory acts.* *Value of testimony covering a period of past insanity.*

Present—JOHN ORDRONAUX, *State Commissioner in Lunacy.*

CASE AND OPINION.

STATEMENT OF FACTS.

On the 22d day of January, 1874, Mrs. Jane C. Norton, of Brooklyn, wife of the relator, was duly committed as a lunatic to the Bloomingdale Asylum. This institution is a department of the New York Hospital, and under the administrative control of its Board of Governors. She was removed therefrom by her said husband, while still uncured, on the 24th day of December in the same year. The form of insanity under which she labored, was that known as puerperal, and it was accompanied by fixed delusions affecting her memory of faces and persons, so that she was constantly mistaking visitors, the patients in the same ward with her, and the physicians in daily attendance, for her husband and children. In relation to facts outside of herself, her memory was generally good during the period of her insanity; in relation to facts belonging to her person, her feelings, and other self regarding incidents and events, it was extremely faulty, and when crossed by her delusions was unreliable as

an appellate tribunal of past occurrences. The exact limits of occultation of her memory, and the varying degrees of obscurity exhibited by it during the passage of an umbra or penumbra, over her mental horizon, form curious phases of disordered action in the processes of recollection, and impart to her testimony a character very difficult to weigh, in the balance of intellectual veracity.

About a year after her removal from the asylum, she complained to her husband of abuses inflicted upon her while there, and notably of an injury done to her throat while being fed by two attendants forcibly and against her will. She was at that time laboring under the delusion, that to eat would destroy her children, and would have starved herself had she not been fed by compulsory means. On examining her throat her husband found it greatly disfigured, and showing evidences of past extensive laceration. It is now permanently deformed. But neither voice, speech nor swallowing appear at any time in the past to have revealed its condition to those about her, and her own statement of the fact was its first discovery to any one. She also charges the same attendant with purposely and violently jamming her hand and wrist in the crack of a door, and of using insulting language to her.

Believing in the truth of these statements her husband thereupon instituted proceedings before the State Commissioner in Lunacy against the Society of the New York Hospital, for the alleged torts committed by their servant to the person of his wife, praying that the same might be duly inquired into, and such remedy applied as is provided by statute.

The hearing of the case occurred on the 13th October, 1876, and the judgment thereupon is expressed in the opinion which follows:

OPINION.

The case presented for adjudication, upon the facts now in evidence, is one primarily of *tort* arising from the negligence of a servant in the employ of the respondents. It rests, therefore, upon that well established principle in the law of agency, which makes the act of the servant the act of the master whenever performed in the line of his duty, and fixes the responsibility for the consequences of such discharge of duty upon the master, in obedience to the maxim of *respondeat superior*. But apart from the legal aspects of the case in their relation to any just cause of action arising therein, several novel points in the law of evidence have arisen upon the hearing, for which there are no precedents in the books. Their discussion consequently opens a new field for judicial inquiry, in relation to the value of the testimonial evidence of insane persons, or of those who having been insane are restored once more to their civil rights. The opportunities for such testimony are multiplying daily, and the responsibility, both legal as well as moral, which it may tend to fix upon the Managers and Superintendents of our lunatic asylums, are so grave that I feel myself justified in the discharge of the new and judicial duties imposed upon me by statute, in making a precedent of this case, and in announcing, at the outset, the conclusions of law, by which I shall hereafter be guided in disposing of similar issues.

The following are these conclusions, viz.:

First. That in an action against the custodians of a lunatic for *tort* to his person, he is a competent witness, but the defendants may show acts, on his part, of a contributory character tending to set in motion the

causes of the injuries complained of, although intention can not be imputed to him.

Second. An insane person may be competent to testify to facts not relating to himself, according as the Court is satisfied with the degree of his understanding, and a person who has been insane, and is apparently recovered may testify to facts occurring during the period of this insanity, *provided* that in both mentioned cases the facts testified to are objectively demonstrable, and constitute a basis from which to begin such testimony.

Third. A personal and self regarding incident occurring during a period of insanity, and testified to by its subject either while still insane or when recovered from that state, is not *per se* an evidential fact, and its probative force rests wholly upon corroborating circumstances.

I need hardly say that these conclusions are derived from principles in the law of evidence, which have become fixed by time and experience. They are the metewands of the law in respect to all testimony, for however sincerely and veraciously given that testimony may be, the constitution of the human mind is such that since even in health it is amenable to error, it must follow that in disease error is the tendency against which it can least protect itself.

The facts wearing the semblance of mal-administration which the relator prays may be inquired into are embraced in the following inquiries:

First. Whether the governors of the New York Hospital now have in their employ at the Bloomingdale Asylum, an attendant named Jane Eaton, whom he avers that he has reason to believe is negligent, incompetent and cruel in her treatment of the insane.

Second. Whether certain injuries alleged by him to have been inflicted upon his wife while a patient at that asylum, and under the immediate care of the said Jane Eaton, were, as matters within the purview of the proper medical supervision of his wife, known to the physicians in charge of her, or to the Governors of that institution.

Third. Whether if such alleged injuries escaped the observation, and were never brought to the knowledge of either the physicians or Governors aforesaid, while his said wife remained committed as an insane person to their custody and medical supervision, then, whether any system of concealment is habitually practiced by attendants in the Bloomingdale Asylum, whereby the physicians thereof are not kept duly informed of the physical and mental state of their insane patients, and can not in consequence maintain such a record of their cases as required by law.

Fourth. Whether, if such facts so alleged by him be substantiated, the system permitting their existence is not one dangerous to the well being of the insane, and calculated to destroy public confidence in the administration presiding over an institution devoted to their care.

Before proceeding to the consideration of these charges, as seen in the light of much conflicting testimony, it may be well to review the position which under our lunacy statutes, as recently codified, the parties before me occupy towards each other. For although these statutes do not alter the common law relations of the relator to the respondents, they have newly declared the powers of the State as the custodian of its insane citizens, by instituting methods of supervision, visitation and judicial inquiry into their

condition, not heretofore promulgated in the form of legislative enactments; a few sentences will suffice to explain the spirit and scope of these statutes.

The statute creating the office of State Commissioner in Lunacy was designed to provide immediate remedies solely for persons in the actual custody of asylums. (*Vide chap.* 446 *of* 1874, *Tit.* 10, § 4, *and amendments thereto in chap.* 574 *of* 1875, *and chap.* 276 *of* 1876.) The reason is obvious. For those who may have been patients in them, and are no longer so, the courts are open for any redress to which they may feel themselves entitled. If they have been wronged they have their remedy at law, but that remedy can not be obtained from the Commissioner, for they are no longer within his jurisdiction. It was to protect those who can not protect themselves by appealing to courts that the statute was passed, and even the remedies which the Commissioner can supply are in their nature only provisional, and in no wise modify the original jurisdiction of courts in similar cases. It is only therefore under the second clause of the forms of possible and prospective wrong to lunatics, recited in the statute as a foundation authorizing the intervention of the Commissioner, viz., "*whenever there is inadequate provision made for their skillful medical care, proper supervision, and safe keeping*," that I find myself authorized to act in the present case.

Giving the most liberal construction to the powers granted me by statute, the wrong to be remedied must be either actually happening to a patient now in an asylum, or so generally impending as to constitute a constant menace to his health or security, and thus to form part of a system of habitual mis-government of the institution. I can not, therefore, act upon a mere presumption of wrong, but must be justified by such

evidence as would amount to a strong probability, derived from a course of events moving generally in one direction.

Now, there is no allegation before me that any patient is to-day, or has been at any time before or at any time since Mrs. Norton's detention in the Bloomingdale Asylum, habitually maltreated or neglected, or in any way inadequately provided with "*skillful medical care, proper supervision and safe keeping.*" All presumptions derived from time and the history of that institution are to the contrary.

The relator, in his affidavit, confines himself exclusively to charging acts of cruelty or harshness as having been inflicted upon his wife by an attendant in the asylum. But he does not state that he believes such acts were done either with the knowledge, assent, or by the command of the medical officers of the institution or its managing board, the Governors of New York Hospital. Nor does he state that he believes such acts either are or have been of common occurrence there, or that they have ever been repeated.

If the acts of wrong, charged by him against the attendant, Jane Eaton, are merely personal acts limited to his wife alone, and not acts of agency done in the line of her appointed duty, then, whatever their nature or consequence, I can administer no relief to the relator, since his wife is not a patient in the asylum, and is not within my proper legal jurisdiction. But, if I rightly understand Mr. Norton, the motive which has inspired him to demand this investigation is not one of obtaining personal redress against either Jane Eaton or the Governors of the New York Hospital. He brings his complaint before me asking to having it inquired into whether the wrongs alleged to have been committed upon his wife, are part of a system of erroneous

supervision now in force at the Bloomingdale Asylum. This is the crucial and only point in fact upon which I am authorized to adjudicate. If he has established that fact, he has substantially established his whole case—if he has failed to do so under the rules governing the construction of legal evidence, then there is properly no case upon which I can pass.

The testimony of the relator shows that his wife, being insane, and adjudged a fit subject for treatment in an asylum, was admitted to Bloomingdale on the 22d day of January, 1874, where she remained until December 24th in the same year. That some few months after her commitment there, she grew worse and had to be removed to a different ward from that in which she was first placed, when she came under the charge of two attendants, severally named Jane Eaton and Jane Gordon. That during her stay in this ward she was very weak, and labored under certain hallucinations, all of which led her to refuse taking food. That, in consequence of this, and in order to save her life, it became necessary to feed her by force, as is usual in similar cases. That this feeding was done by Jane Eaton in the presence, and by the assistance of Jane Gordon.

The relator further testifies that on several occasions, while visiting his wife, he saw bruises upon her face and neck, which he believes were inflicted by Jane Eaton. But he never saw her strike his wife; nor did his wife while in the asylum make any such assertion; nor did any person tell him of this fact until nearly a year after her return home. His wife then for the first time communicated the fact to him.

He further testified that he saw on one occasion fresh blood issuing from his wife's mouth, which he also believes was the result of violence done to her throat by

the "*unwarrantable jamming of a spoon or some other rough instrument in the hands of the said Jane Eaton.*" No other person told him of this fact, save his wife, nor did she till nearly a year after her return home. Mr. Norton's testimony is, therefore, largely hearsay, and in law does not even amount to presumptive evidence.

Mrs. Norton's testimony is to the effect, that while she was in the institution at Bloomingdale, she thought she was surrounded by bad people who would injure her, and that in consequence she dared not make any complaints while there, even to her husband; that she refused to take food, because she believed it would injure her children, and that thereupon she was forced to do so by the attendant, Jane Eaton; that said Jane Eaton, in order to intimidate her solely, and to punish her for refusing to take food, was in the habit of calling for a large spoon, which she would then thrust, with the convex side up, into the witness' throat, at the same time moving it up and down, whereby her throat was injured and permanently disfigured. (The throat of Mrs. Norton, on being examined by Drs. Sands and Choate, both experts, shows that it has been lacerated, and that adhesions have taken place between the right lateral margin of the *velum palati* and the *uvula.*) Mrs. Norton further testified that Jane Eaton deliberately jammed her wrist several times in the crack of the room door, drove her naked through the ward to the bath-room and back, and frequently used opprobrious language to her. She admits that she never stated any of these things to her husband while he visited her at the asylum, nor until nearly a year after her return home, but explains this by saying, that her sister advised her, that, by waiting, her mind would grow stronger and better able to recall all these events.

On the part of the respondents, it is admitted that Mrs. Norton was a patient in their asylum during the

time set forth by the relator, and that she was discharged therefrom while still uncured of her insanity; that she was at one time very weak, and under such delusions as to forcibly refuse taking food, whereby her life was seriously endangered; that it became necessary, in order to save her life, and as part of the legal duty of these respondents, to feed her by such coercion as would overcome her resistance; that this duty was assigned to Jane Eaton, an attendant, who had been employed as such for fourteen years in their asylum; that said Jane Eaton was accustomed to the performance of such a duty, and that they had every reason to believe her possessed of the necessary skill, prudence and experience to discharge it; that no charge of neglect, unskillfulness or harshness had ever before been made against her, and that in the duty of feeding Mrs. Norton, she had always been aided by Jane Gordon, a fellow attendant in the ward, who was also, in their opinion, trustworthy. The respondents further showed that they never knew of any injury being done to Mrs. Norton's throat while in their care and custody; and that by the experience obtained from the daily events transpiring in their asylum, they had reason to believe that the bruises seen upon the face and neck of Mrs. Norton, were inflicted by other patients, whom she had annoyed by seizing hold of them, through her delusion that they were her husband or children.

They admit that it is possible Mrs. Norton's throat may have been injured during the process of feeding her against her wishes, and by force exercised to overcome her own resistance, but they submit that the act of so feeding her was necessary to save her life, and constituted an essential part of the medical treatment, which they were, by law, obliged to furnish, and that it could not have been omitted or performed in any

other way, without a greater risk to her life. They also introduced several witnesses, to show both the good character as well as the habitual disposition of Jane Eaton for kindness, fidelity and patience, evinced towards the insane of all classes; and showed also, by the testimony of Dr. Choate, an expert in insanity and long in charge of a large insane asylum, that injuries to the mouths of insane patients, when such patients forcibly resist taking food, and coercive measures in consequence have to be employed, were liable to happen, and were not, therefore, of infrequent occurrence. Dr. Brown, the Superintendent of Bloomingdale, also testified to the same fact. But neither of them had seen a case precisely like that of Mrs. Norton's throat. They, however, gave it as their opinion that such an injury was quite possible under the circumstances of forcibly feeding a refractory patient, and thought this the most rational theory whereby to account for the injuries in question.

Looking over the field of this evidence, it is manifest that all the acts done to, and injuries alleged to have been inflicted upon Mrs. Norton, must have occurred in the privacy of the ward, and that there were but three witnesses to them, viz., Mrs. Norton, Jane Eaton and Jane Gordon.

The veracity of none of these witnesses has been impeached, and each is entitled to credence to the extent of her knowledge of facts, or to the distance of her interest from the issue involved in the case. One of these witnesses, Mrs. Norton, was insane at the date of the occurrences which she related, and her testimony in law can not be accorded the rank of *prima facie* evidence. It is at best only secondary evidence; but this distinction, which is a purely legal one, affects the quality and not the strength of the proof; for if circumstances

otherwise corroborate the proof and show that its existence is consistent with no other theory than that set forth in the allegation, then the proof may be said to be established.

Now the capacity of any human mind to rightfully interpret events occurring about it depends upon a trained perception, an unclouded judgment, and an absence of all subjective relation to the matter under examination. Necessarily, also, every adult human being is steeped in his own temperament—wears the livery of his ordinary mental states—and exhibits the color of his predominant moral feelings. All these factors habitually enter into and may infect the subject matter of a judgment, and thus may put limitations upon its freedom. We acknowledge this when we say that no man is a good judge in his own case, and the law recognizes these springs of human action, when it determines that no man shall try his own case.

Thus when a person who has once been profoundly insane and has apparently recovered his reason, undertakes to describe with particularity events occurring during that period, we are compelled to scrutinize such statements, not from a standpoint of veracity so much as from one of intellectual competency; because we know that insanity permanently enfeebles the mind, and that an act of self introspection involving memory becomes thenceforth more difficult; and because, also, in the effort to perform it, the mind is apt to fall into the oldest worn channels of thought—those, in fact, which were most used during the period of its greatest insane activity.

In consistency with this law of our mental constitution, which is both recognized and engrafted upon our municipal code, we can not but regard the jndgments of the insane, in all matters affecting their personal feel-

ings, as peculiarly liable to error. Such mental efforts are generally wanting in capacity for comparison and in freedom from self enslavement—therefore in certainty. They all, more or less, exhibit the distorting influences of a disease whose overshadowing feature is its tendency to confound the subjective with the objective. It is not the fault of the insane, therefore, if their judgments on personal matters are so often bound up in adamantine fetters of conviction, forged in the workshop of imagination rather than of demonstration. This was the reason why the common law anciently rejected the testimony of the insane as incompetent in itself to enlighten a judicial inquiry, unless such lunatic was in the enjoyment of a lucid interval, but not otherwise, since in matters of evidence no degrees of lunacy were anciently recognized at law, and in several cases a lunatic was treated as a dead person, so far as his competency to testify was concerned.

Coke Litt. 6, *a Ibid.* 247; *Currie v. Child*, 3 *Camp.* 6, 282; *Adams v. Kerr*, 1 *Bos; and Pull*, 360; *Bennet v. Taylor*, 9 *Vesey* 381; *Comyn Dig. Test moigue; Grotius J. B. et P. Lib.* 2 *c* 13 § 2.

But these rulings belong to a day when few, if any, insane asylums existed, in which to immure such persons, and expose them to the possibilities of undiscoverable outrage. And it will be observed that none of these decisions touch the point now before us, relating to the competency of one testifying to events occurring during a period of past insanity. We are left, therefore, to seek the law governing the value of such evidence in natural equity, enlightened by mental philosophy, since with the change of circumstances produced by the erection of asylums, containing in the aggregate thousands of lunatics, has also come the necessity of relaxing the old rule, and allowing them to testify in their own behalf, whenever found competent.

Courts have always looked with distrust upon the testimony of the insane, because of its generally misleading character. Nor will this appear surprising when we recall the disturbing influences produced by insanity upon the moral, as well as the mental faculties. From the earliest of our decisions touching the competency of such evidence (*Livingston v. Kiersted*, 10 *Johns.* 362, *A. D.*, 1813. *Hartford v. Palmer*, 16 *Ib.* 143, *A. D.*, 1819) down to the present day, this form of proof has never been considered *prima facie* wherever any other relating to the same series of facts could be obtained. The reasons for this are aptly set forth in the case of Holcomb v. Holcomb, 28 Conn. 181, A. D. 1859, where the court, commenting upon the value of such testimony, said:

"The inlets to the understanding may be perfect, so far as any human eye can discern; the moral qualities may all be healthy and active; the conscience may be sensitive and vigilant, and the memory may be able to perform its office faithfully, and yet, under the influence of morbid delusions, reason becomes dethroned, false impressions from surrounding objects are received, and the mind becomes an unsafe depository of facts. * *

The force of all human testimony depends as much upon the ability of the witness to observe the facts correctly, as upon the disposition to describe them honestly; and if the mind of the witness is in such a condition that it can not accurately observe passing events, and if erroneous impressions are thereby made upon the tablet of the memory, his story will make but a feeble impression upon the hearer, though it be told with the greatest apparent sincerity."

In 1851 a case arose in England which required a relaxation of the common law doctrine, excluding the testimony of the insane. There, a patient in a lunatic

asylum was so grievously assaulted by an attendant named Hill that he died of his injuries. Hill was thereupon indicted for murder, and a lunatic named Donnelly, who was one of the witnesses to the assault, was, after examination by the Court as to his competency allowed to testify. Exceptions being taken to this on a case reserved, the judges were all of opinion that no error had been committed, it being held that the admissibility of such evidence was to be left to the discretion of the Court, since there was no unvarying principle by which to govern such cases. (*Regina v. Hill*, 2 *Denis, C. C. R. p.* 254, *A. D.* 1851; 3 *Dowl. Pract. Cases*, 161; *Temple & Mew*, 582; *Kendall v. May*, 10 *Allen*, 59; 1 *Whart. Cr. L.* 752.) In this case Donnelly being the most intelligent witness to the assault no better testimony could be adduced, and the facts testified to not relating to himself, no motive for misstatement or exaggeration could reasonably be imputed to him. Whether he would have been deemed a competent witness in his own case is a matter upon which the court did not express any opinion.

Except in the case above cited I can not find a single instance where a lunatic, not in a lucid interval, was admitted to testify before a court. In the only instance which approximates to it, viz.: (*Ex. parte*—3 *Dowl. Pr. Cas.* 161,) a party applied for a habeas corpus to bring up a person, who was confined in a lunatic asylum, for the purpose of producing him as a witness. The affidavit stated that he was *rational.* The court held that the writ could be granted if the party was in a fit state to be removed, and was not a dangerous lunatic. Both these cases, however, go to the extent, only of showing that where no better testimony than that of a lunatic exists, it is competent to offer him as a witness, leaving the Court to decide upon his admissi-

bility. But the common law doctrine remains nevertheless unchanged, wherever it can be applied without hindrance to justice.

The reasons for this exclusion are well stated by Mr. Shelford, who in his Law of Lunatics and Idiots, p. 621, says in confirmation of this doctrine that "the ground of excluding the evidence of insane persons, in courts of justice, requires little or no illustration, for it is obvious that they are altogether unfit to communicate such information as can be relied upon, or will afford a motive to assent in any case, and much caution is required in admitting persons who are sometimes insane to give testimony in a court of justice, even during their lucid intervals. When, indeed, the intermission of the disease has been long, and the facts concerning which the evidence is required is of recent occurrence, and no access of the disease has followed, evidence of the facts to which such a witness deposes ought to be received, more especially if other witnesses to the same point can not be obtained; but such evidence is liable to great suspicion, and will not perhaps be entitled to receive full credit, except in conjunction with and as corroborative of other proof."

It is upon these two last mentioned principles, viz.: that no other witnesses to the same point could be obtained, and second that it was corroborative of other proof, that the insane witness, Donnelly, was allowed to testify in Regina *vs.* Hill, and it is because of these same existing conditions in Mrs. Norton's case that I have felt it proper to admit her testimony. Nevertheless, since a period of insanity has always been considered at law as one of civil death from which no *prima facie* testimony could be elicited, great doubt must necessarily attach itself to the evidence of persons, who having nominally recovered from a state of insanity, seek to testify to facts occurring during its existence.

Assuming that Mrs. Norton is admissible to testify to facts occurring since her removal from Bloomingdale, or to facts occurring previous to her insanity, it still leaves the question of how well she remembers what happened during the period of that insanity. Her real competency to testify turns upon this. It is admitted that she was legally committed as a lunatic to that asylum, and was removed therefrom while still uncured. Nearly two years have elapsed since this event, but whatever changes for the better may have occurred in her mind, it is not in accordance with the laws of memory that impressions should grow fresher with the lapse of time. The reverse is in fact the case, for as Locke has beautifully expressed it: "The pictures drawn in our minds are laid in fading colors, and if not sometimes refreshed, vanish and disappear." (Book 2, ch. 10.) If this be the law governing the action of healthy minds, are we authorized to assume that this law wholly suspends its action in disordered minds? Or, in other words, can we assume that the memory gathers strength from the weakness of the organ which gives it expression? I can find no authority for such an assumption. Consequently, what may have been the range and what the limitations of Mrs. Norton's powers of memory during her insanity, and what they are now, become, in this connection, a very proper subject of judicial inquiry. For no presumptions of absolute recovery from a state of acknowledged insanity arise in law from the lapse of time alone. Something more than this is needed, and the burden of proof is on him who alleges it. (*Attorney Gen. vs. Parnther*, 3 *Bro., ch. ca.* 443; *Peaslee vs. Robbins*, 3 *Metc.*, 164; *Hix vs. Whittemore*, 4 *Met.*, 545; *Shelford on Lunatics*, 275; 1 *Gr'lf's Evid., section* 42.)

It has been, therefore the invariable practice of courts to make this inquiry as a condition precedent to the

admissibility of the witness. It was so done in *Regina vs. Hill*, above cited; it was reaffirmed in *Spittle vs. Walton*, 40 L. J. Chancery, 368; and again in one of our own courts in *Campbell vs. The State*, 23 *Alab.*, 44; where Chief Justice Chilton, speaking to the point, said that "the question was, whether the witness, conceding him to have labored under mental delusion at a previous period, was, at the time of the trial, of sound mind." In Mrs. Norton's case, it seemed to me the more equitable way to allow her to testify in her own behalf, without previous examination, leaving that testimony to stand or to fall, as a test of her mental competency, according as it squared with itself, and was corroborative of facts otherwise circumstantially established.

The problem now before us, therefore, is to determine whether any lingering mists of insanity still obscure her mental vision, and whether the incidents to which she has testified are facts, recollected by her memory from objective data, or are the offspring alone of a belief of their having happened, together with such frequent self-repetitions of that belief as to fix them upon the mind as events having had a real existence. Experience teaches us that an insane impression, like the memory of a dream, may hover for years indistinctly in the mind, and the fact that we find it there, is no proof of its reality, but only of its persistence. By frequently recalling its outlines we gradually intensify its complexion, until it attains to proportions and to a distinctness never existing in the original. The baseless fabric of a cloud thus appears like a continent of matter, and becomes a tangible fact to the eye of the subjective beholder. In its natural state, the human mind is constantly passing through regions of fact and of fiction; is constantly besieged by intrusive ideas, which require power to control them, and education to utilize them.

Even the healthy intellect may delude itself unconsciously. The biographer of Charles Dickens asserts that while writing his inimitable fictions the author heard the voices of his imaginary characters speaking the words which he placed in their mouths. So true it is that in the workshop of the imagination the mind may give to "airy nothing a local habitation and a name," and thus may ideas of things, by long nursing, grow to become what at first they only seemed.

It is evident, therefore, that sane or insane, we see at best but "through a glass darkly," and constantly need to use that natural logic which God has given us as a guide and rectifier of our mental processes. Hence the law of testimonial evidence recognizes a difference between *knowledge* of a fact and *belief* of a fact; between an *incident* which may be simply personal and subjective, and an *event* which is objective and demonstrable. The probative force of demonstrative knowledge, is, in the absence of perjury, unqualified and conclusive. It is evidence of the highest order. The probative force of a belief, however intense or sincere it may be, only equals that of an inference. It is at best but a conclusion drawn from a postulate not yet established outside of the mind of the believer.

A number of witnesses were introduced to testify to the excellence of Mrs. Norton's memory, both before, and during her stay in the asylum, and many facts were stated by her relating to this period which were fully corroborated. But this excellence of memory in several particulars, does not justify the conclusion that it was so in all. It is well known that memory, even in the sane, is the most treacherous of all faculties. A person may have an excellent one of dates and names, yet at the same time have a very poor one of faces, and persons. Mental philosophers accordingly make a sharp

distinction between *capacity* of memory and *power*. To the former they ascribe a retentive memory, to the latter a ready one. (*Stewart Phil. of the Mind, p.* 248.) Mrs. Norton seems to have been gifted with a retentive memory, of which however, she evidently lost the power while insane, for she constantly mistook day after day the same persons for her husband and children, although as constantly reminded of her error by these very persons. Whatever may have been the portion of her brain affected, it is certain that it so impaired her physical sensibility and her power of attention, that no fixed impressions were made upon her mind by external causes. It was, like that of most maniacal patients, in the condition of a photographic plate between which and the sunlight groups of miscellaneous and over-lapping images are constantly passing. Distortion of that imagery was the inevitable result.

These phenomena are so commonly observed in insanity that they may be considered concomitants of that disease. Nor are their effects often recovered from, to the extent of a plenary restoration of the memory.

Although testifying with great confidence in the accuracy of her memory, Mrs. Norton still showed her present distrust of its power, by bringing a memorandum to the witness' chair with her. This fact did not surprise me. It simply convinced me that she was yielding to the necessities of a mental law without being conscious of it. On the one hand, she was asserting in her own evidence, and that of others, the infallibility of her memory—while on the other hand, she was seeking aid to sustain it.

We have seen from the evidence, that while insane, she lost all memory of the persons of her husband and children, mistaking men and women indiscriminately

for them, and although she testified that Jane Eaton deliberately jammed her wrist several times in the door, Dr. Burrall testified that on several occasions he unconsciously closed the door upon and pinched the fingers of Mrs. Norton, who had thrust them into the crack, without her being conscious that anything had touched them. Mrs. Norton, testifying to facts occurring during her insanity, is thus flatly contradicted by Dr. Burrall. Again, her delusion that every man or woman she met was her husband, or children, was not dispelled by her seeing such men or women daily. The delusion was fixed. Now what was its area? No one can tell, not even herself. Was it limited to one category of ideas, or did it embrace many? We can never know *a priori*. We can only infer from experience, of its conduct.

In undertaking to solve this problem it is well to recall that law of the association of ideas from which we learn that the mind does not consist of compartments with impassable walls between. It is more truthfully comparable to the ocean, where although we have millions of waves, we have but one common mass of water. The tidal wave created by a volcanic eruption on the coast of Chili, is next day felt on the coast of China. Has it traveled that immense distance in so short a time? Assuredly not. It is felt there only as the transmitted percussion of an original impulse, and the inhabitant of China may not only be ignorant of the place where the wave started, but more so still, of the cause which produced it. So too, in the operation of the human mind, we can not always tell whence an objective idea comes, nor what gave it birth. We often only know that it has come because we find it there, and if we can give no reasons outside of ourselves for its existence, we can not be said to know accurately the world about us.

In trying to form any estimate of Mrs. Norton's mental capacity we find it proved that while insane she constantly confounded and mistook persons. Familiar as her husband's and children's faces must have been to her, she yet was daily mistaking other persons, with whom she was in hourly contact for them. She states that Jane Eaton frequently struck her in the face. She does not say that any one else did. Yet Dr. Brown states that he has seen patients strike her in return for her seizing them. Has Mrs. Norton forgotten this? It seems reasonable to conclude that she had no knowledge at the time of these events, or of who it was that struck her. And if she had no definite knowledge of such facts can we concede that in thinking it was Jane Eaton who struck her, she was capable of judging rightly. The law demands moral certainty in evidence. It can not convict upon presumptions alone. Mrs. Norton thinks because she remembers a few things relating to her asylum life accurately, that she must remember necessarily all things. But we have seen that Dr. Burrall and Dr. Brown, both testify that she did not remember two of the plainest and most visible facts that can occur to a human being, both facts also being usually accompanied by a sense of pain.

In the case of a sane mind the fact would be surprising; but it is not so with the insane, in whom such things are of common occurrence. Which of these witnesses shall we believe? Mrs. Norton testifying to incidents which she believes she saw, while the shadow of an eclipse was upon her mind, or Drs. Burrall and Brown who saw as ordinary healthy minds see.

But the chief wrong charged by Mrs. Norton against her attendant, Jane Eaton, is that she was in the habit of deliberately thrusting a large spoon into her throat,

and moving it up and down as a punishment for her unwillingness and resistance to being fed. This she affirms occasioned laceration of her throat, and the permanent disfigurement which now exists. In making this statement she fails, however, to give us sufficient details of these occurrences to enable us to judge exactly what happened during this performance of being fed. Did she cough? Did she strangle while the spoon was in her throat? Did she know all that occurred? And since she is a truthful person and was permitted to make her statements at full length, I can not but infer that her omission to give any particulars touching her injuries, arises from the fact that being then confessedly insane, she did not know clearly nor entirely what was passing on around her. The four experts who examined her throat are of opinion that the injuries done it might occur from her forcible resistance to being fed. They can not explain it upon any other hypothesis. They also say it might occur without the agency of criminal intention.

Now Mrs. Norton admits resisting forcibly the attendants who were feeding her. She admits that they had to force open her mouth, and that she struggled against it, moving her head so as to embarrass those who were engaged in feeding her. It is evident she was not passive, but performing contributory acts, which might in the opinion of experts become the causes of self inflicted injuries. Being at that time insane we can not properly apply the doctrine of contributory negligence to her acts any more than to those of a child. In either case they are the acts of an irresponsible agent. But it would be against all equity to allow any person to derive an advantage from his own hurtful acts. No one can be allowed to profit by his own wrong, nor to charge his self-produced misfortunes to the disadvantage of another.

But apart from the effects of this internal evidence, thus casting distrust upon Mrs. Norton's credibility, it so happens that Jane Eaton was not the only person present at these forcible administrations of food. Jane Gordon, another attendant, was also present on all these occasions, and rendering aid; and although she participated in restraining Mrs. Norton's resistance, she never, as she states, saw Jane Eaton use any violence while feeding her, either before or during the act. She saw Mrs. Norton resist, and saw Jane Eaton force open her mouth with a large silver spoon, but never saw her thurst it into her throat or move it up and down. Here again are two witnesses against one, and these two not impeached.

The preponderance of evidence is thus seen to be in favor of contributory acts on the part of Mrs. Norton, causing injuries without her consciousness of the method of their occurrence.

From this mass of conflicting testimony, which has here been reviewed, and weighed in the balance of probabilities, we are led to certain conclusions of fact, to which it is now my duty to apply the same principles of law which govern courts in estimating the value of circumstantial as well as testimonial evidence.

It is necessary at the outset to bear in mind the relations subsisting between Mrs. Norton and Jane Eaton. The former was an insane patient in charge of the latter, whose duties varied with the incidents of the patient's disease. On one day she might need restraint, on another, not; on one day she might require feeding by force; on another, not. For the purpose of properly discharging these duties to Mrs. Norton, Jane Eaton was constituted the lawful agent of Dr. Burrall, having his authority to act in the manner directed by him. The act of feeding Mrs. Norton was in every

sense a lawful act, between which and an unlawful act, the law makes a great difference in personal responsibility for any mishaps which may occur thereby. Therefore, no presumption of malice attaches itself to an injury occurring in the course of a lawful act; and the burthen of proof rests upon him who alleges it. But, if it be an act involving skill and the party charged has contracted to furnish it, then a presumption of negligence arises out of every direct injury thence issuing. (*Wharton on Negligence*, § 26; Dig. L., 16, 213, 2; *Institutes*, Lib. 3; Tit. 24 (Sander's Ed.) p. 466; Stanton *vs.* Bell, 2 Hawks., 145.)

In the treatment of diseased persons, however, we are dealing with moral agents having more or less freedom of action, and the services of a physician or nurse can not be fully discharged without some concurrence on the part of the patient. In other words, the duties of the patient are subjective as well as objective. It must be borne in mind that we have to treat not simply a sick animal nature, but a sick animal nature influenced by a will power acting, as in the instance of the insane, very often against the interest of the individual's well-being. The contract under which the physician or nurse acts, particularly in the case of the insane, may be said to lack the most essential of ingredients in an agreement for medical treatment, viz., the ingredients of *confidence* and co-operation. A man who renders me a service against my will can not be said to be my agent. Hence, as most of the insane are under compulsory medical treatment, they can not be assumed to occupy the same moral and fiduciary relations to their medical attendants as do the sane. They are not bound to co-operate with their medical attendants in securing a cure in their own persons, as sane patients are, and their neglect or unwillingness to do so can not

be imputed to them as contributory negligence in an action for malpractice, any more than to a child.

And yet, since insanity at law is a term of variable significance, covering very different shades of mental unsoundness, I am not prepared to say that there could not be a phase of it in which a patient might be capable of such negligence as would amount to contributory wrong on his part. But in any case, no man can be permitted to profit by his own error, however void of intentional wrong that error may be. To the extent of his responsibility, he is responsible, and it has never been questioned, therefore, that an insane person was responsible in damages for torts committed to property. *Broom's Common, on Common Law*, p. 684; and ca. ci.

Nor in the relations of insane patients to their lawfully constituted attendants, can it be contended that, in injuries occurring to themselves through their violence and resistance to proper medical treatment, the entire responsibility for such wrongs rests upon their custodians. No one would be willing to assume the care either of children or lunatics if they thereby assumed responsibility for every possible accident which might befall them. The law imposes no such unreasonable obligations upon any one, and expects in turn no impossibilities from them. It considers the relations of the parties to each other, and apportions responsibility according to possibility, intention, and evidence of good faith in conduct.

The presence of insanity does not change, in law, the presumption that its subjects are still human, nor that they enjoy a certain power of choice in actions purely self-regarding. Principles of law may have necessarily to be modified in their application to them, but these principles are not thereby extinguished. Speaking of the duties of all patients, independent of their mental con-

dition, C. J. Lewis, of Pennsylvania, said: "It is the duty of the patient to co-operate with his professional adviser, and to conform to the necessary prescriptions; but if he will not, or under the circumstances he can not, his neglect is his own wrong or misfortune, for which he has no right to hold his surgeon responsible. No man may take advantage of his own wrong or charge his misfortune to the account of another (*McCandless vs. McWha*, 22 *Penn.*, 268.") And this doctrine was substantially re-affirmed in our own Courts, where it has been decided that if the injury was due to the plaintiff's fractiousness and disregard of the defendant's orders, the latter being judicious, no action would lie (*Carpenter vs. Blake*, 60 *Barb.*, 488.)

It will be observed also that neither Mr. Norton, in the remarks made by him introductory to his sworn testimony, nor Mrs. Norton, in her evidence, charge Jane Eaton with negligence, unskilfullness, or any delinquency as an agent or servant of the institution while engaged in feeding her, but allege that the act of thrusting the spoon into her throat was an act of deliberate personal malice, intended as a punishment. Now the probative force of any testimony will always depend upon its agreement with a state of facts which, the contrary, if established, would negative; and it is a well recognized principle in the law of presumptive evidence that "where," in the language of Mr. Greenleaf, "a criminal charge is to be proved by circumstantial evidence, the proof ought to be not only consistent with the prisoner's guilt, but inconsistent with any other rational conclusion." (1 *Greenleaf's Evid.*, § 34; *Hodge's Case*, 2 *Lewin, C. C.*, 227.)

Even taking Mrs. Norton's throat as evidence of injuries inflicted, it is more consistent with the experience of the accidents to which refractory patients in asylums

are exposed when fed by force, and as testified to by Drs. Choate and Brown, to infer that an injury did, in fact so occur to Mrs. Norton, of which, though largely contributing to it herself, she was not at the time wholly, if at all, conscious. In the absence of positive proof, therefore, that such injury had a criminal origin, I am constrained to form my judgment upon that exculpatory presumption which requires that, in the absence of contrary proof, the act shall be referred to the operation of the least guilty motive (*Wills Circ. Evid., p.* 157.)

Under these principles it seems settled that charges like these now before me must be proved to the same degree if they can not be in the same manner as other charges of a similarly criminal character. Neither presumption nor inference of wrong arises merely from the custodial character of the relation subsisting between Mrs. Norton and Jane Eaton. To permit such a presumption of fact as that to arise, would be to accuse the State of placing its helpless citizens purposely in circumstances where they would be exposed to wrongs without remedy, and to oppression under the disguise of humanity.

It is impossible for me, therefore, under any rule of legal evidence, to cast out the testimony of an unimpeached witness like Jane Gordon substantially corroborating Jane Eaton in all essential facts. If Jane Gordon is to be believed, and I have no right to disbelieve her, her testimony gives a preponderance to the moral evidence in the case which negatives Mrs. Norton's charges. And if proofs of previous good character form part of a legitimate answer to such charges also, then they further give weight to the defence, under the well-established rule that "in forming a judgment of criminal intention, evidence that the party had pre-

viously borne a good character is often highly important, and if the case hangs in even balance should make it preponderate in his favor." (*Wills on Circ. Evid.* p. 164; *Reg. v. Frost, Gurney's Rep.* 749.)

And even were I to exclude character as having any weight in an issue of this kind—a step I could not take without violating every principle of justice, and exposing myself to the charge, both of ignorance as well as bias, I should still find myself confronted by a rule of judgment founded in natural equity, and which has constantly guided our Courts in deciding that "in order to justify the inference of guilt, the inculpatory facts must be incompatible with the innocence of the accused, and incapable of explanation upon any other reasonable hypothesis than that of his guilt." (*Wills Cir. Evid.*, *p.* 188.)

If I have given greater latitude to the discussion of Mrs. Norton's testimony than the real merits of this investigation would seem to justify, it is because of the fact that it involves as before stated, an important point in the law of evidence which has not yet been settled by our Courts. Persons are every day discharged from our lunatic asylums as either cured or uncured, and taken back into the bosom of society to resume their civil relations to it. Assuming that their capacity to testify to recent facts is re-established, what, it may be asked, are the retrospective limits to that capacity? Does it go back indefinitely so as to include the period of their insanity, or shall we apply the maxim of *falsus in uno falsus in omnibus* to it?

We have seen in Mrs. Norton's case the juxtaposition of error with truth in the store-house of memory, the dividing line being that subjective one on the thither side of which we see as we feel, and we recollect from our belief rather than from self-demonstration.

Without entering, however, into any analysis of the opinions of alienist physicians touching those nervous centers whose diseases seriously disturb the memory, either partially or wholly, it is practically sufficient for the law to determine whether any physical and uncontradicted fact exists from which such a witness as Mrs. Norton can begin her testimony. If it does, she has a right to be heard; if it does not, then her evidence has no objective foundation on which to rest, and is amenable to the suspicion of self-deluding error.

The question, therefore, is not one of Mrs. Norton's veracity, which no one disputes, but whether she has produced that amount of proof which is required at law to substantiate her charges. Judged by all the above established rules of evidence, it must be conceded that she has failed to sustain her allegations.

Again, Mr. Norton charges among the other abuses to his wife, that of putting on a straight-jacket, and detaining her needlessly in bed. Now, I presume it will not be contended that, in the case of a lunatic, such an act is in itself an act of abuse. Restraint of insane patients has everywhere been regarded as, at times, necessary, and whether the method be by hands of attendants, or by mechanical appliances, the question of its fitness has always been considered one exclusively falling within the province of the attending physician. In the United States, the use of the camisole or straight-jacket has been regarded by experts as the simplest and least hurtful form of mechanical restraint, and under existing states of opinion it may be considered settled that the confining of a patient in one would not be considered in itself an abuse. Whether in a given instance it was put on too tight or too loose is a question of fact, not affecting the more general question of the system under which it was done—or the legal right to do

it. So, too, the detention of a weak insane patient in bed, for a longer or shorter time, is often a necessary part of their medical treatment, and a question whose determination is very properly left to their medical attendants. No layman has the requisite knowledge to draw any inference from it.

But whatever may be the absence of proof of any criminal wrong having been done to Mrs. Norton's throat, the circumstances connected with the fact of such an injury, coupled with want of knowledge of its existence by the physicians in charge of the Institution until a year after her removal, are incidents of asylum life which demand some official notice on my part. It can not be denied that much of the public sensitiveness relating to the possible grievances of the insane in asylums, arises, not from any personal distrust of the Boards of Managers or physicians of these institutions, both which generally represent gentlemen of the highest integrity, capacity and loyalty to their several trusts, but solely from the knowledge that the ultimate execution of the orders of these gentlemen, and, consequently, the ultimate results for good of such institutions depend practically upon the character and fidelity of attendants.

Looking at the powers of personal custody, control and moral influence over the insane which are delegated to these attendants; looking also at the necessary seclusion and privacy under which their services must be rendered, in order to be efficacious; and looking, lastly, at the character of these services so taxing to patience, endurance and charity, it is not surprising that the public should deem it impossible when relatives of an insane person can not endure his presence at home—that strangers should be kinder and more forbearing with him in the privacy of an asylum. It is idle to criticise

this as sheer ignorance; it is wiser to confess that it is a feeling of human nature which we must respect, because born of our affections, while at the same time it is our duty to allay the distrust which so naturally springs from it, particularly when any accidents occur to the insane.

Disbelieving, however, in the theory of accidents, as popularly called, it has seemed to me that, with the acknowledged skill and experience of Jane Eaton, she should have prepared herself for such contingencies as might arise in the course of feeding a patient like Mrs. Norton. The law requires of all persons whose contract for personal services involves the elements of skill, that they should couple with this a degree of diligence proportioned to the difficulties of the task undertaken. Skill and diligence are indissolubly associated in law; and while the absence of the former constitutes fraud, the absence of the latter constitutes negligence.

It is difficult to believe that the accident to Mrs. Norton's throat can have entirely escaped the notice of Jane Eaton. Such an accident, involving laceration of one-half of the throat, with subsequent acute inflammation, resulting in adhesions of the uvula to the *velum palati*—such an accident must have so altered the anatomical proportions of the parts as to have seriously impaired their functional activity. There must in consequence have been swelling with extreme tenderness on swallowing; there must have been great difficulty of articulation, and manifest alteration in the tone of her voice. Some of these symptoms, if not all, must have been present for over a week. Dr. Sands says in his testimony that it would require two weeks for the throat to recover from them. Yet, during all this time, she does not appear to have made any complaint, and none of those about her, although feeding her, and con-

versing with her daily, discovered any indications of her injuries. This is, to say the least, very remarkable; and in seeking for an explanation of it, we are placed between two alternative propositions, for either Mrs. Norton was so insane that her sensibility was seriously blunted, and that she showed no suffering, or else Jane Eaton knew of the accident, and concealed it. It is not necessary, in order to constitute negligence on her part, that she should have known its extent. Nor was she to wait until Mrs. Norton revealed her injuries before taking cognizance of them officially. The civil and the common law alike place the helpless infant and the senseless lunatic upon a similar footing. Though neither complain, both may be the subjects of wrong. (*Itaque pati quis injuriam, etiamsi non sentiat, potest. Dig.* 47, 10 1, §1.)

When she saw blood issuing from Mrs. Norton's mouth, or saw Mrs. Norton swallowing or speaking with increased difficulty, those facts should have put her upon inquiry into their cause. The law placed her there for the purpose of anticipating harm to the insane, as well as checking it when it came.

There is no evidence, it is true, that she knew of the injury as such, but that does not exonerate her from the duty of constantly being on her guard, and of ascertaining daily, whether, in the midst of such struggles and resistance as Mrs. Norton made, no injury followed when a spoon was thrust into her mouth. Every intelligent nurse must know that in performing such duties as feeding a refractory patient with a spoon, some risk is incurred; and though an accident may happen without blame to an attendant, not to discover such accident affords a just ground for doubting either her skill or her vigilance. There may be wrong done by neglect of watchfulness as well as actual commission, since the result in either case may be similarly disastrous.

I do not think the managers of any asylum should allow an accident as serious as that to Mrs. Norton's throat to pass by, without some reprimand, at least, to the attendant, within whose field of duty such accident has occurred. Length of service alone, or even good character, should not diminish responsibility. And while there may be no just reason to condemn, where there is no positive evidence of guilt, there is always reason to admonish wherever there is ground even of a suspicion of negligence. Ordinary diligence is not sufficient in the case of the insane. The delicacy of the trust and the perilous contingencies which surround it, require the most unrelaxing vigilance. Any want of this constitutes at law a dereliction of duty.

I believe it is generally conceded by the superintendents of our asylums that even the oldest attendants require constant supervision. They believe this to be necessary, because it is in the nature of all services of such a character as theirs to render the execution of them after a while somewhat perfunctory and mechanical. This is the reason I find why many superintendents prefer to employ new attendants, rather than to take those who have grown old in the service of other asylums. I do not think the reason a logical one, since on general principles an experienced attendant of good character should be a safer one for the insane than a novice. The better reason, I fancy, is to be found in the fact that too much confidence is apt to be reposed in an old attendant merely from the length of service alone, and vigilance on the part of physicians is thus unconsciously permitted to be relaxed. The attendant speedily perceives this, and in proportion, as authority is conceded him without frequent interrogation as to its use, he gradually assumes more by the negative permission of being unchecked. In this way he ultimately

comes to see and to report only what he pleases in relation to the daily condition of the patients committed to his care. Now in order to obviate this tendency to exclusive reliance upon the attendant's caprice for a history of the patient's life in the asylum, the law of 1874 makes it the duty of every superintendent of an asylum "*to make entries from time to time of the mental state, bodily condition and medical treatment of such patient, together with the forms of restraint employed during the time such patient remains under his care.*" (Chap. 446 of 1874; Tit. 1, art. 1, sect. 4.)

If Jane Eaton had more fully communicated from time to time, the events belonging to Mrs. Norton's conduct, we might have had some clue to the date, and possibly such an explanation of the occurrences which led to the injuring of her throat, as would have rendered this investigation unnecessary. But as no such details appear upon the case book of the asylum, I must infer that no particular facts relating to Mrs. Norton were communicated by her to the physicians, or else they would have entered them there, in compliance with the provisions of the statute.

It seems to me, therefore, a proper time to suggest that more particular reports should be required from attendants daily—that they should be instructed to report fully, every occurrence in the conduct of their patients, as forming in fact a symptom of their disease and an exponent of their varying condition. It is not for them to judge what to tell or what to withhold in such matters. They should act only as mirrors and messengers, to represent the patient's condition to the physicians in charge.

The more we look at the sphere of duty and the personal jurisdiction over patients which must necessarily be entrusted to attendants, the more we become im-

pressed with the conviction that they of all other officers in an asylum hold the keys of its fortune in their hands. Whatever may be the skill, or diligence of physicians, however untiring may be the vigilance of managers or their visiting committees, all these may be practically neutralized at the very threshhold of their wards by the individual infidelity of an attendant. Physicians can not always be present—neither can they well avoid visiting their patients at certain definite times, which ultimately become known, and preparations are accordingly made by attendants, both of patients and rooms, to have them seen and inspected. Nevertheless, the law of agency constructively assumes that every act done in those wards by an attendant is done by the managers of the institution. *Qui facit per alium facit per se.* The privity of contract subsists d rectly between the managers and the party who places a lunatic in their keeping, however many subagents these managers may employ. (*Thomas v. Winchester*, 2 *Selden*, 397. *Landon v. Humphrey*, 9 *Conn.* 209.)

It will be thus seen that a very heavy responsibility, often too heavy for the grade of intelligence on which it rests, falls upon attendants, and a still heavier responsibility upon the managers, as their sponsors and principals before the law. I am myself often amazed at the facility with which managers confide the delicate task of caring for the insane, to the persons I meet with in asylums as attendants. And since the grade of service in the labor market is generally determined by the salaries paid, it is our duty to first elevate the latter, if we hope to be able to elevate the former. The doctrine of retrenchment does not apply in any system of wise political economy to salaries paid for skilled labor. Whenever such labor is well done, the laborer is always

worthy of his hire. And even as a switchman or an engineer on a railroad, has a more immediate control over the safety of its passengers than its whole Board of Directors, so in an asylum, an unfaithful attendant may do a measure of harm which a whole Board of Managers can not prevent.

It would seem, therefore, that for the better protection, both of the good fame of asylums as well as of the safety of the insane committed to them, more details of the daily life and occurrences to patients should be entered upon the case-books of these institutions. This, indeed, is required by law, but I regret to say is not always fully complied with. Mrs. Norton's case shows us the need of these daily records, in the absence of which judicial inquiries are compelled to grope their way through the labyrinths of circumstantial evidence.

And in order also to prevent all possibility of negligence on the part of attendants, it seems desirable that a person in the nature of a supervisor of attendants should be employed in every large asylum. It should be his or her duty to pass the day in patrolling the wards, entering them unexpectedly; being present at meals, and seeing that the attendants do not relax in their discharge of duty. By such means there would be a constant supervision, which at present there is not, of both attendants as well as patients. This person would represent the eye of the physician, while the attendant would represent the hand. Physicians can not be constantly on their wards, nor with such an assistant to supervise their attendants, would they have any reason to doubt the faithful execution of their orders. The experiment above suggested has already been tried and with good success for the past year, in the male wards of the Willard Asylum. The patients find in such a person a friend, and as they believe a

protector; and the attendants find in him an adviser, and moral guide. I need not say what effect the knowledge that such a person is in the wards of an asylum, must have towards quieting public apprehension.*

There will always be suspicion of wrong doing and abuse of the insane, awakened by accidents like that which has befallen Mrs. Norton. It requires but a slight indulgence of the imagination to paint them in dark colors, or to believe them matters of habitual occurrence. Such statements, also, when made in a plausible manner wear a similitude of truth, which is apt to take captive our feelings, ere we have allowed reason to reflect upon the probability of their improbability.

One of the chief objects underlying the creation of my office, was that of re-assuring public confidence in the fidelity of those to whose care it has confided the insane, by securing early investigations of all cases of suspected wrong. In the present instance every opportunity has been given, both the relator and the respondents to make their allegations and to traverse them. And in arriving at the conclusions which I have, it has been a satisfaction to perceive that both parties have joined issue in a manner calculated to eliminate from the record all vindictive claims on the one hand, and all appearance of a technical defence on the other.

The respondents having also through the chairman of their committee, Mr. Beekman, anticipated my action in the premises by themselves soliciting suggestions tending to the more efficient administration of their trust, I deem it sufficient to announce my conclusions to them,

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*This suggestion we heartily approve. Most of the Institutions in this country, have one or more supervisors of attendants. There are six in the Utica Asylum, one to each one hundred patients and their necessary attendants.—Eds.

believing that they will carry the same weight in their estimation as attaches to a legal promulgation. I shall issue no order, therefore, under the statute, provided the respondents shall, within the next sixty days, furnish me satisfactory evidence that they have carried the above suggestions into operation.

Judgment entered accordingly.

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October.—President's Address of the Annual Meeting of the Medico-Psychological Association, held July 28, 1876: William H. Parsey, M. D. On the Prevalence of the Causes of Insanity among the Ancients: Daniel Hack Tuke, M. D. On the Question of Getting, Training and Retaining the Services of good Asylum Attendants: T. S. Clouston, M. D. Torquato Tasso. Case of Sudden and Complete Aphasia: Joseph Lalor, M. D. Letters on the Relation of Drink and Insanity: Dr. Peddie and Dr. Bucknill.

Observations on the Brain of the Chacma Baboon. Dr. Major in this article gives the results of a general and microscopic examination of the brain of the baboon as compared with that of man. That the entire brain

mass in man is greater than in the baboon, and is by far the richest in the number and complexity of the convolutions, i. e., in the extent of cortical substance, has already been shown. The question then arises, whether there are no histological differences between them, corresponding to the above mentioned and universally acknowledged variations. To elucidate this, a comparison has been made by examining, microscopically, corresponding portions of the brain in man and the baboon, and carefully noting the peculiarities of nerve element and connective tissue in case of each. The parts chosen for this comparison were the convolutions forming the vault of the hemispheres, especially the ascending frontal and parietal convolutions and the tips of the occipital lobes. The method adopted for displaying the brain tissue, is that so well known as Clark's method.

We will not attempt to give the results of the examination in detail, but pass at once to the author's conclusions.

In the brain of the Chacma and in man, the general character and appearance, i. e., the form and relative number of the cell element in the various layers, show no variation. In the *second* layer in the frontal and parietal regions the number and general size of the large nerve cells, which constitute what has been called the formation of the *cornu ammonis*, predominate in man. As showing the significance of this fact it is important to remember that the anterior portion of the hemispheres, where these larger cells are found, are the parts in which the highest functions of the organ are performed. "A careful study of the subject and a close comparison of numerous sections, have led me to the conclusion that in man, *the number of the cell processes, and, as a consequence the extent of their connections, is greater than in the baboon.*"

These remarks apply mainly to the large pyramidal bodies of the second layer. Although the author appreciates and states the difficulty, inherent in the subject, of forming a positive opinion, yet he presents his conclusions after due reflection and examination. A pertinent deduction from this state of appearances is made in the form of a question: "Do not the above facts render it probable that there is a relation between the functional activity of the nerve cells and the number and complexity of their anastamoses? and if so, is it not in accordance with what would be expected, that in man the arrangement should be most complex, and that, passing downwards in the scale of development, it should become more and more simple?"

The Plea of Insanity in Cases of Murder. In this article Dr. Yellowlees has given a history of the case of Tierney, which is substantially as follows: The prisoner was a miner, and had been employed for years in the same mine as his victim, and for months they had worked in the same heading. There had been disputes between them regarding their labor, and the overman of the pit had been called to settle their differences. On the day of the murder, the two men had been working together as usual, when Tierney suddenly left the pit. Soon after, some fellow workmen were attracted to the heading by groans. The man Campbell was found in a dying state, with two large stones lying upon his body, and with many fractures of the skull, evidently caused by blows from a collier's pick. Tierney was arrested the same evening at some distance from his home. After his arrest, and while in prison, he was examined, on two different occasions, by experts. Their report was, substantially, that his manner was peculiar, reserved and suspicious, and that

his replies to questions were slow and evasive; and though he was fully aware that he was charged with murder, he denied all knowledge of the crime, and appeared quite easy and indifferent as to his serious position. They were unable to discover any such mental aberration or defect as would justify them in asserting that the prisoner was insane at the time of the examinations.

Upon the trial it was proved that Tierney had been insane for a lengthened period about sixteen years before, after the death of a child, and that he had been removed to Ireland as a lunatic. Some of the facts regarding his insanity at that time, were also testified to: that he was in the habit of taking a razor to bed with him, and that he once burned all the clothes he could lay his hands on; also, that for the last fourteen years he was dull, stupid and unsociable, whereas before this illness he had been cheerful and sociable. The only testimony of importance as to his recent condition was given by the Catholic Priest: that he had known him for seven or eight years, and had always thought he was not altogether right in his mind, and accountable for his acts. He then gave some circumstances narrating peculiarities of manners, his sulleness, neglect to reply to questions, silently following him home on one occasion, and stated he had refused the prisoner the privileges of religion, because he did not consider him sane. He thought he was not able to perform a humane act, or to form a correct judgment; he told the neighbors not to blame his wife for leaving him as he considered him insane, and that she was in danger of her life.

The testimony of the experts, Drs. Yellowlees and Robertson, is quoted at some length. The former testified: "When I examined Tierney, I saw nothing that would enable me to certify that he was insane. From

what I have heard of his history, I believe that this amount of mental peculiarity may have lessened his power of self-control and self-regulation. I do not think that mental peculiarity was such as would make him the mere helpless instrument of his own impulses." Dr Robertson said: "The evidence I have heard corroborates the opinion, that there is, in this man, a certain mental deficiency consistent with sanity. I think this mental deficiency is referable to the previous attacks of insanity. *Q.* And that the recovery has not been complete? *A.* The restoration has not been complete—not so much with regard to his intellect—as the moral power of his mind. The Advocate-Depute: You mean that in consequence of that previous attack of insanity, his power of regulating his actions has been somewhat weakened, although his mind can still judge of the nature of his actions? *A.* That is exactly what I mean."

The pleas of counsel, and the charge of the judge, from which we quote, followed:

In summing up, Lord Ardmillan went carefully over all the evidence, especially as regarded the prisoner's mental condition; and instructed the jury as to what was required to establish the plea of insanity. He said: "Liability to sudden irritation, susceptibility to provocation, sullenness, ill-temper, silence, gloom—none of these would do. All these might exist without that deprivation of reason, that shattering of the powers of the mind, which constituted insanity. But, if there was a recurrence of the disease, depriving the man of the power of controlling his actions, impelling him irresistibly to commit certain actions, that excluded responsibility." He did not favor the suggestion of the prosecution, "that the man's control over his own mind might have been so weak as to deprive the act of that willfulness which would make it murder;" but indicated to the jury that they should find him either sane or insane, and give their verdict accordingly.

The jury after being out three-quarters of an hour, returned the verdict. "The jury unanimously find the

panel guilty of murder as libeled, but strongly recommend him to mercy on account of the excitement which might result from previous insanity." The prisoner was then sentenced to death, and listened to his doom with apparently stolid composure. The experts joined in a recommendation to mercy to the Home Secretary, on the ground that "while his mental condition did not entitle him to acquittal on the ground of insanity, yet it was such as should mitigate his punishment and save him from the extreme penalty of the law." After a special medical inquiry the sentence was commuted to penal servitude for life. From the comments upon this case we extract the following interesting remarks. After speaking of the often quoted definitions of insanity by the judges, he says:

Few now regard these definitions as truly representing our knowledge, and in his instructions to the jury in Tierney's case, Lord Ardmillan distinctly recognizes the power of controlling our acts to be as essential an element of sanity and responsibility as the knowledge of their nature and consequences.

The recognition, by the jury and by the Crown, of the existence of partial insanity, is a yet greater advance.

The law is slow to admit the fallacy and the danger of the rigid mathematical line, by which it would divide mankind into two classes only—the sane and the insane, the responsible and irresponsible. But, between these two classes, there is an intermediate multitude unrecognized by the law, who belong to neither class, while having affinities with both, and who show in most variable mixture traits both of sanity and insanity. These intermediates may do much, or perhaps all that legally sane men can do in the daily work of life, and their weakness may be so concealed by the routine of habit, or may be apparent on occasions so few and brief, that their neighbors scarcely observe it. It may be periodic, irregular, or constant in character; may have reference to special subjects or individuals; or may be evinced merely by oddity, irritability or obtuseness. Its degree and its expression may vary greatly, not only in different individuals, but in the same individual at different times; occasionally no weakness can be detected by the most careful observation, at other times it is ap-

parent to all. Yet the habitual daily lives of such people may not differ materially from those around them, and only the members of their own households, or those in daily contact with them, may recognize that they are not like other men.

It is these unfortunate intermediates who occasion so much confusion and uncertainty in our criminal courts, when the plea of insanity is urged. An intermediate at the criminal bar must be regarded as either sane or insane. Hence the testimony as to his mental condition is often conflicting, for it will depend on the aspect of his character which each witness has seen; and the sentence he receives must of necessity be unjust, for if he be deemed sane it will be too severe, and if he be deemed insane it will be too lenient.

This confusion and error must continue until the law recognizes that there is a condition of partial insanity, which may disturb, without destroying a man's appreciation of his acts and their consequences, and may lessen, without annulling, his power of self-control. This partial insanity must be held to imply a modified responsibility; and the evil deeds of such a man must entail a modified punishment.

The recognition of this doctrine in Tierney's case is most satisfactory. It has been recognized by Scottish criminal courts in at least two previous instances. The case of McFadyen in 1860, and of Milne in 1863—in both of which the capital sentence was commuted to penal servitude for life, on the ground of the prisoner's mental condition. [See Irvine's Justiciary Reports, vol. iii, p. 650; and vol. iv, p. 301. See, also, a valuable summary of such cases by Sheriff Spens in the *Journal of Jurisprudence*, for November, 1875.]

It was not surprising that lawyers should have held so tenaciously to their imaginary division and erroneous definitions. Some physicians have done much to justify them. They have been so acute that, with prophetic eye, they could detect insanity in its obscurest beginnings, and could evoke from the slenderest data the direst picture of irresponsible disease; or they have been so charitable that they were ready to rush to the rescue of a criminal when insanity was but whispered, and to throw over him, with due flourish of trumpets, the shield of their detective wisdom. Such conduct is most mischievous; it lessens the due weight of medical evidence, it obstructs justice by bringing the plea of insanity into contempt, and it too often gives pretext for the false and ignorant sneer that insanity can generally be proved, if there be money enough to prepare the defence.

But lawyers have a better reason for their tenacity than exceptional folly like this. To lower the general sense of responsibility for wrong-doing, would be a public calamity so grave, that it can not be too carefully guarded against; and this evil could not fail to result if the plea of insanity were too lightly accepted. On the other hand, what can tend more to lessen the public respect for justice, and the public confidence in its administration, than to see a man solemnly condemned as a criminal, and afterwards practically acquitted as a lunatic, by being sent to an asylum during Her Majesty's pleasure?

The acquittal of every criminal in whom any degree of mental defect could be discovered would be both unjust and dangerous, nor is the common excuse that confinement in an asylum is the same as perpetual imprisonment, at all sound. It is untrue as regards the individual, it is unsafe as regards other intermediates who might, by his conviction, have been deterred from similar crimes; and it is a violation of the public sense of justice, when a criminal escapes merited punishment.

The suggestions made in the interest of the prisoner by the Advocate-Depute, that Tierney's power of controlling his actions had been so weakened by the previous diseases, that the jury might possibly find him guilty of culpable homicide, rather than of willful murder, deserves attention, as one mode of solving the difficulty occasioned by intermediate criminals.

Perhaps it evades the difficulty, rather than solves it, unless, indeed, the principle were adopted that in every case the jury should consider the character and motives of the murderer, as well as the circumstances of the deed, and should specify, as in some other countries, the degree of his guilt. Whether this would not be in itself more equitable, and in every way more satisfactory, than the utterly uncertain and irregular way in which the Royal clemency is now dispensed, is not a question for this paper.

I have suggested, as a simple way of meeting the difficulty, that when the jury can not acquit a prisoner on the ground of insanity, and yet are satisfied that there is some mental defect, they should be able to find him "guilty, but *entitled* to mercy on account of his mental condition." This finding should save the prisoner from the extreme penalty due to his crime, whatever the crime may be, and should leave it entirely to the judge to determine what mitigation of punishment the mental condition demands.

We heartily commend the sound views of Dr. Yellowlees. It is too often lost sight of that the false and fictitious pleas of insanity, with their outrage on public morality and social law, are due quite as much to hired attorneys as to physicians.

The Hypodermic Injection of Morphia. Dr. Diarmid enumerates the disadvantages of opium and its alkaloids when administered by the mouth. These are nausea, dryness of mucous surfaces, loss of appetite, and constipation. The alkaloids may be altered or have their virtues impaired by the gastric secretion, or absorption may be delayed or entirely hindered and thus the amount appropriated from the same dose administered may greatly vary at different times. The advantages of its administration hypodermically—there is usually less disturbance to the system in the way of nausea, dryness, and often no tendency to the production of constipation. The dose can be definitely fixed; absorption is sure, as the material is placed immediately in the circulation; the effect is rapid, and pain is quickly relieved. A great advantage which is deemed of special importance in cases of insanity, is the fact that remedies can in this way be administered to those who persistently and successfully resist the ordinary method of giving them. Experience with hypodermics of morphia are recorded in cases of melancholia, acute, chronic and recurrent mania, and general paralysis and the following conclusions are drawn.

1. Of all single drugs, opium, or its alkaloid morphia, is the most potent and reliable hypnotic and sedative in the treatment of insanity.

2. Morphia, administered subcutaneously, is more rapid in its action and more powerful in its effects than when given by the mouth.

3. By hypodermic injection, not only irregularity in action dependent on gastric conditions, but digestive disorders incident to the stomachic exhibition of morphia are avoided.

4. The subcutaneous is the easiest method of giving opiates when a patient refuses to take medicine, and always the most exact.

5. Of various adjuncts to opiates, warm baths are the most useful.

6. Attacks of acute and recurrent mania, and paroxysms of excitement in chronic mania and dementia, may be cut short in the outset, or beneficially controlled, by morphia subcutaneously administered.

7. In such cases (*i. e.*, acute mania, &c.,) the tongue becomes clearer, and the appetite, as a rule, improved by this treatment.

8. Morphia so administered has no marked tendency to cause constipation; and even in melancholia by alleviating the misery, and thus lessening the waste of nervous force, it predisposes to improvement in appetite and digestion.

9. Vomiting, the only unpleasant symptom apt to occur with the hypodermic treatment, is generally due to over-eating or digestive disorders existing previous to injection, and may, by care as to the time of administration, be avoided; and when it happens, is frequently beneficial rather than otherwise.

It must, however, be borne in mind, that many of the phenomena referred to are still *sub judice*, and that the opinions enunciated may require considerable modification as the result of further inquiries.

The article upon the *Provision for the Insane in the United States*, gives a succinct and in the main correct account of the establishment of the various asylums in this country, from the date of the earliest, the Pennsylvania Hospital 1751 to the present time. Credit is given to that greatest of American philanthropists and laborer in the cause of the insane, Miss Dix, for the noble and extraordinary part which she has taken. The data are drawn largely from the AMERICAN JOURNAL OF INSANITY, from Dr. Ray's address at Danville, and from Dr. Tuke's private correspondence.

The American Institutions and Superintendents are defended from the unjust and wholesale attack of the *Lancet* of November 13, 1875, by Dr. Bucknill in his article already presented in the October number of this JOURNAL.

A visit to an Insane Colony; is an account of a visit to the colony of Gheel in which the writer gives the impressions made upon his mind by the patients and the system. Dr. Deas finds much to commend in the colony as a home for the chronic insane, but at the same time expresses the opinion that there is a want of "immediate and constant watching of the cases, and of direction of the treatment by a medical man." "To found anything like a Gheel in this country would be utopian, impossible. Such a system could only *grow up* and that under the most exceptional circumstances."

Some Observations on General Paralysis. Dr. Ashe in his investigations into the causation of general paralysis calls attention to some interesting facts, among them, that but few cases of this form of disease are found in asylums of Ireland, a percentage far below that of the asylums of England or Scotland. The question is propounded whether this state of affairs can be accounted for on the ground of the difference in the kind of stimulants employed; the Irish using whisky largely, while the English and Scotch use almost exclusively malt liquors. A second query is also made as to the effect of the Cocculus Indicus, which is extensively employed as an adulteration of malt liquors. As substantiating this theory, Pereira is quoted, that this drug causes staggering, trembling, tetanic convulsions, and insensibility, and that it appears to act on the voluntary muscles. "Observation has shown its power of producing paralysis, when administered in too large

quantity. It seems to affect both the nervous and muscular systems." In further elucidation of the subject, the pathological conditions of general paralysis are given, especially the fatty degeneration of all the tissues, and a considerable removal of the earthy constituents of the bone, to both of which causes is due the tendency to fracture of the bony tissues. Now if any toxic agent by its presence in the system is able to produce these results it is claimed that there is a strong probability of its being the cause of the disease in question. Phosphorus is said to be the agent which in excess will produce the effects described. A case of poisoning by phosphorus is given in which the examination gave results corresponding to the above conditions. In the application of this theory of causation it is noted "that the victims—in the better classes at least, are generally men of more than average mental endowments; that is to say according to the views generally adopted, men of more highly phosphorised brains than usual. Again, as a rule, England feeds on a more highly phosphorised diet than Ireland. Where England consumes cereals, a phosphorised diet, Ireland consumes the potato, a non-phosphorised."

With a large experience in cases of general paralysis, we should give no credit to the views of Dr. Ashe as to the influence of the form, or adulteration of stimulants or phosphorus. In the United States there has been an insignificant amount of paresis in the west or the southwest where they live largely upon cereals, while in the State of New York where the diet is the same, the disease is common. On Ward's Island, in the Asylum for Men, of the city of New York, general paresis is more largely represented than in any other institution in this country, and that too among the Irish and whisky drinkers.

The article on Bethlem Royal Hospital, by Dr. Daniel Hack Tuke, contains a full account of the renowned Bedlam. There are many facts in the life of that institution presented, and for which we are indebted to the research of the author. The Hospital was established as a Priory of the Order of Bethlem in 1247. The first record of the insane being cared for in the Hospital occurs in 1403. The first medical governor was Helkins Crooke, in 1632. A description of the building, with its additions, from time to time, and of the treatment of the inmates, adds to the interest of the historical detail. The different methods of increasing the funds of the institution by asking alms of the citizens, and by exhibiting the unfortunate lunatics at a penny a head, show the necessitous condition of the Hospital. Reference is made to the results of the investigation of the committee of the House of Commons in 1815, which re-revealed the shocking barbarities to which the insane were then subjected. The lessons drawn from the history of Bedlam, is the necessity of having lunatic asylums open to periodical visitation.

Notes on the Reparative Power in Insanity, consists of a report of ten cases of injury, mostly of bony structures, in insane patients. The recoveries were in the main rapid, and considering the character of the patients, and the difficulties attending the treatment remarkably free from defect or deformities. It is incidentally mentioned, the Commissioners' Report for 1874, gives the record of twenty-six fractures, occurring in the Scotch Royal and Districts Asylums.

Dr. Yellowlees reports two more interesting trials for homicide, in which insanity was made the plea. The testimony of experts and the charge of the Judge in each case, fully define the positions assumed by the medical and legal authorities.

Under *Occasional Notes of the Quarter*, there is reported a speech made by Dr. J. C. Bucknill before the Rugby Temperance Association, followed by a correspondence between Dr. Bucknill and Dr. Clouston. The subject under discussion was, whether drunkenness is a vice or a disease. We quote from the remarks of the former:

He had heard the Revd. Mr. Venables speak with emphasis and enthusiasm of the part which members of his profession were taking in the crusade against intemperance, and he wished he could supplement it by saying that the members of his (Dr. Bucknill's) profession were taking a wise, patriotic, and useful part in the attack upon the great vice of our age and country. But he was afraid that just now members of his profession were taking hold of the stick by the wrong end, and were considering drunkenness not as a cause of disease, but as a disease in itself, which to his mind was a very great mistake. If drunkenness was a disease, it was not a vice, and could not be dealt with by education, and repression, and attempts to reform, but must be dealt with—as indeed many of his profession proposed to deal with it—by establishing hospitals for what they called the unfortunate drunkard. They said, "Poor fellow, he can't help it; he must be placed under medical treatment, and have all the comforts and luxuries he wants, until he is cured." That was not his view of the case. He believed drunkenness to be a fruitful cause of disease, but not in itself a disease; and he looked upon inebriate asylums as an unfortunate attempt to coddle drunkenness, and patch up a wide and fruitful social mischief. Last year he was in America, and took a great interest in visiting the institutions for promotion of sobriety. He might mention that at the great Centennary he was in Boston, when a crowd of perhaps 150,000 persons went to Concord and Lexington, very fairly to congratulate themselves on the victories their grandfathers won over ours. He mixed with the crowd, and must say they were very disorderly—the police had to make themselves scarce—but he did not see, the whole of the day, in that vast crowd, one man the worse for liquor. He visited many of the American inebriate asylums, and he came to the conclusion that the gentlemen confined in them were generally rather proud of their position, and felt themselves interesting subjects of enquiry. As far as he could observe, they were there

under a very lazy and shameful pretense of curing a disease which did not exist, by remedies which were not applied. They had only to walk outside the walls of the institution to the nearest liquor-shop, and get as much liquor as they chose to buy, and they could take liquor into the asylum with them. A friend told him that he went in the Inebriate Asylum on Ward's Island, for New York, and visited the rooms of four of these unfortunate inebriates, every one of whom was enabled to offer him a choice of spirits. He was not surprised to hear that there was not a very friendly feeling in America between the teetotallers and the supporters of these inebriate asylums.

"He very earnestly hoped that the Rugby Association and the great one to which it was allied, would set their faces against the view of drunkenness as a disease. Habitual drunkenness is not a disease, though it causes all manners of diseases; but in itself it is a vice and should be treated as a vice."

Dr. Clouston's letter is written in support of the disease theory of drunkenness. We quote:

If I might be pardoned for presuming to criticise your views, I would say that in the first place you did not fairly represent the opinions of the medical profession when you told your Rugby audience that we all were considering drunkenness not as a cause of disease, but as a disease itself. I don't know any medical man who considers all drunkenness to be a disease, or the result of disease. Most of us do consider that there is a certain kind of drunkenness which is a disease, and not merely a vice. I think you imply that this vice is hereditary, and that it is disease-producing. I confess I can not myself in all cases distinguish what is vice and what is disease in my drunkard patients, any more than in many of my other insane patients. There seems to be much truth in the idea that disease, its seeds and potentiality, is the vice and sin of the body in many cases, and that the real moral vice and sin are, in those cases, its result and expression. I can not see that our considering drunkenness as a disease in certain cases, should in any way tend to the disuse of atttempts to stop and cure it by "education, repression, and attempts to reform."

I so far agree with your views in the practical treatment of all such cases, that along with removing temptations to drinking, I

always tell the patient (the sinner—I beg your pardon,) that except he wishes to be cured, and tries his best to be cured, no power on earth will cure him. The fact is your "vice" is always present along with my "disease." I yield that point; but I object to your ousting my disease-theory from the case altogether! My notion is much more in the direction of setting up Botany Bays for them, where a change of climate and life would combine with the absence of temptation and with hard work in the open air to alter their morbid constitutions. Then you can't deny that half of them are fools from the beginning, and the other half become fools by their indulgences. They are usually (I mean my diseased drunkards) facile, sensual, irresolute liars, devoid of the rudiments of conscience, self-control, or true affection.

In reply Dr. Bucknill writes an extended letter. He first sustains his statement that members of our profession assert that intemperance is a disease, by quoting from papers read before the British Medical Association, in August last, and again by referring to the *declaration* of principles issued by the American Association for the Cure of Inebriates.

The Doctor recognizes a certain form of diseased drunkard, which is, from his description, a lunatic, but claims that this is not the kind of man he has met in the inebriate asylum. "The inebriates (which an abominable euphemism this is!) whom I have seen in these asylums, have been as devoid of any real sign of mental infirmity, as any set of men I ever saw living together in common."

The results of treatment are called to certify that inebriates are not our "diseased drunkards," and especially the statistics of the Binghamton Inebriate Asylum, of one hundred and thirty-seven patients, discharged cured in one year, from a hospital containing less than eighty average population, while in comparison, at the New York State Lunatic Asylum with five hundred and eighty beds, there were only one hundred and eighty-two recoveries.

You would not expect to obtain such results as the above among diseased drunkards, whatever might be the mode of treatment; and to expect it from the system in vogue in inebriate asylums of indolent luxury and *laisser faire* would be in itself almost a sign of imbecility. Either the common run of inebriates you find in these special asylums are not diseased, or their cure is a philanthropic perversion of fact, or both. Probably both, and when philanthrophy sows falsehood broadcast, the furrow produces no crop of annual weeds, but deep rhizomes of untruth, which must be grubbed up with infinite pains and labor.

The position in which the Superintendents of the Inebriate Asylums of this country have assumed, as teachers of the world and, notably their claims made before the committee of the House of Commons has justly exposed them to the criticism they here receive, in the following words.

Up to this very moment the men who most loudly demand a change in our law largely affecting the liberty of the subject point to the statistics of success of the American Inebriate Asylums for the cure of drunkenness as their most weighty argument. Moreover, the Superintendents of the American Inebriate Asylums have taken upon themselves a peculiar position as our instructors. They have banded themselves into an association for the propagandism of their dogma that "Intemperance is a Disease;" and this association sent a deputation of two of its most prominent members to inform and instruct our legislators respecting the great advantages which we might derive from imitating their proceedings. I think, therefore, that I am perfectly justified in making their practice and their public statements the butt of my criticism.

But when I see the American inebriate doctors deputed to teach us how to change our laws, vaunting the absolute cure of thirty-four per cent. of their diseased drunkards, and pushing their creed and their system with an unblushing propagandism, and even challenging our real psychiatry with damaging comparisons; when some of these institutions, moreover, are supported by public funds, and the gentlemen making these statements are public functionaries, then the position seems to be entirely changed, and anyone and everyone seems to have the right to enquire into the credibility of such statements.

It does not, therefore, seem absurd for me to mention, on the authority of Dr. Macdonald, of the New York City Lunatic Asylum, situated in Ward's Island, that on the occasion of a visit to the City Inebriate Asylum, situate in the same island, he went into the rooms of four of the inmates, and was by each of them offered the choice of spirits.

Nor does it seem absurd for me to state that when I visited the Washington Union for Inebriates at Boston, I was told by Mr. Lawrence, the resident superintendent, that his chief reliance, as a curative measure, was placed in earnest religious exercises, accompanied by temperance songs, supplemented occasionally with pills of cayenne pepper; that his patients had the run of the city, and that he had no means of preventing them from getting drunk out of doors beyond their faithfulness to their word of honor. Nor was I surprised when I met with a man at Binghamton who told me that he had been under treatment at this Washington Home, and that, notwithstanding the religious exercises and the word of honor, he and most of the other patients were in the constant habit of getting whisky at a snug spirit store close to the asylum.

Nor does it seem absurd to me to declare that at the great model Inebriate Asylum at Binghamton belonging to the State of New York, I was assured, not by one patient but by many, that they habitually got as much whisky as they liked by simply walking down to the outskirts of the town, just beyond their own grounds; and that the institution was good for nothing, except as "a place to pick up in"—that is, to recover after a debauch. Nor was I surprised to hear from Dr. Congdon, who has replaced Dr. Dodge as the superintendent of this institution, that he used no medical nor moral treatment. Dr. Gray, of Utica; Dr. Orton, of Binghamton, and another governor of the institution, whose name I forgot, [Dr. Wey,] heard Dr. Congdon make the admissions to me, and I was told at the time that the impression made upon them was so strong that Dr. Congdon's reign would probably be a short one; which has proved to be the case.

Is it, therefore, absurd to draw the inference that if thirty-four per cent. of the inmates of such institutions are cured by a residence of a few months, without any real treatment, medical or moral, they have not been the subjects of disease of the brain, nor such patients as we mean when we speak of diseased or insane drunkards? That they may have been drunkards, and they may have "picked up" and left the institution sober, may perhaps be conceded; but that they have been admitted with one of the most

intractable and persistent disorders of the nervous system, and have been cured of it without the use of discipline or treatment by leading for a brief time a life of indolent luxury, under a cloud of constant tobacco smoke, with cards and billiards, and only ostensible abstinence from whisky, this, if true, would be marvelous.

I must make an exception with regard to the Franklin Home for the *Reform* of Inebriates at Philadelphia, under the charge of Dr. Harris. This was the only place I saw in America where honest, earnest work was being done, not for the cure but for the reform of drunkards. Dr. Harris repudiates the idea of curing that which is not a disease, and his system is widely different from the no-system which I remarked elsewhere.

Then follow some remarks regarding the distinction necessary to be made between vice and disease and the difficulty that frequently exists in making it; again the relation which drink bears in the production of insanity. A comparison, so far as the material was at hand, of the cases of insanity attributed to the influence of intemperance in various asylums in different countries reveals an extraordinary amount of difference in the part played by drink in the production of insanity in different populations.

This subject is continued in the October number of the JOURNAL, in the letter of Dr. Peddie to Dr. Bucknill, and a reply to the same. This will probably finish a discussion in which much light has been shed upon the subject of the relation of drink to physical disease and consequent mental disorder, and the combatants have defined their position in a way which clears the matter of much rubbish and brings them definitely to the real issue. This issue in our own country has been met, and we fully believe that the advocates of intemperance as a disease are now making little or no progress in gaining converts to their theory. We are glad that so able a pen as Dr. Bucknill's has been brought to bear upon the important social question. His large

experience and observation enable him to use the logic of facts with telling effect, in the discussion of this question.

The Journal of Psychological Medicine and Mental Pathology, New Series.

We gladly welcome this *Journal* to its former field of labor, after a suspension of twelve years. It was first established in 1847, by Prof. Forbes Winslow, the distinguished author and father of the present editor, and was conducted by him for sixteen years, till 1863. The new series resembles the first in size, and in typographical appearance, and retains many of its most interesting features. Its articles are of a practical character, and are contributed largely by those of extensive experience in the care and treatment of the insane, as Dr. W. A. F. Browne, Ex-Commissioner in Lunacy, for Scotland, Dr. Crichton Browne, Dr. W. H. O. Sankey, Dr. Brierre de Boismont, and others.

The new series is published semi-annually, in April and October, and was begun in April, 1875. The four numbers are now before us. We quote from the October number, 1876—an article upon "Mechanical Restraint." During the year just past, American Asylums and their officers have been severely criticised for their use of restraint, and for even asserting their belief in its efficacy, and value when properly and judiciously employed. The whole subject has been fully discussed and the arguments pro and con often presented. We have here, however, English authority questioning the propriety of absolute non restraint, and we apply this to mechanical means, as non restraint unqualified, can not properly be used while patients are forcibly restrained by human hands, or a system of seclusion. While admiring the zeal which our English brethren

have manifested, we think it should be tempered with moderation so far as not to confound use with abuse. Of the abuse of mechanical restraint, we have no doubt and we heartily join with Dr. Bucknill in condemning its indiscriminate and improper application. We favor only the minimum of restraint, and maintain that it should never be used except under the direction of a physician. While manual restraint by attendants, may be all that is required or proper during brief paroxysms or when resistance is moderate, in cases where repression is necessary, for hours together, to prevent an individual from injuring himself or others, our experience has shown that a camisole or a waist band is less irritating, less provocative of resistance, and less humiliating, and certainly less likely to result in injury than a long struggle with attendants.

ART. VIII. *Mechanical Restraint in the Management or Treatment of the Insane.* By F. MURCHUSON, M. A., M. B., Edin. Assistant Physician, Crichton Royal Institution, Dumfries, N. B. Read to Scotch Branch Psychological Association, Edinburgh, November 14, 1875.

A medical superintendent related to me the following anecdote: A determined suicide was brought to him by her father, a bluff country practitioner, who said: "I place this patient in your hands. She will cut her throat, hang, drown, or destroy herself, if she can. I care nothing about your restraint or non-restraint, but I shall require her from you safe and sound, whether sane or not."

The extreme opinions at one time prevalent in Britain, adverse to restraint, have never obtained the same countenance or favor in France, America, &c., where mechanical contrivances still form a part of treatment. Even in this country the conflict between the dictates of professional duty and humanitarian sentimentalism is less keen than it was some years ago. The bugbear dread of public criticism has faded in cases where life or limb is known to be in danger; but would it now be prudent and justifiable to employ such coercion, where the danger is merely *suspected*, *inferred* or *verbally* threatened by the patient?

The following cases may illustrate this difficulty. They have all occurred since the reign of the non-restraint creed became absolute, and are all derived either from my own practice, or the experience of a medical friend in a Public Asylum.

1. M. C., a healthy robust maniac, had been permitted to retire to bed, on the recommendation of the Medical Superintendent, that rest and horizontality should be encouraged. He was almost immediately afterwards called to see her, in consequence of her having wounded herself; and found her in bed, laughing and joking, with a large deep wound extending from about the middle of Poupart's ligament for about four or five inches towards the umbilicus. A triangular flap was folded laterally towards the ileum, the lower edge of the omentum loaded with fat, and several folds of the intestine were exposed. She had detached a pair of scissors from the waistband of the attendant, and inflicted the injury with this instrument. There was inconsiderable hæmorrhage, as neither the epigastric nor any large artery had been divided. The patient recovered completely from the effects of the wound, and from her mental derangement.

2. A clergyman, laboring under suicidal mania and the delusion that he was suffering from a syphilitic sore throat, was requested by the attendant to say grace at a table where ten other persons were standing around. The attendant had (as is common in Scotland) shut his eyes during the benediction, and had laid his carving-knife for a moment on the table. The clergyman, seeing the opportunity, seized the knife and inflicted a frightful gash on his throat, dividing the trachea and the surrounding tissues, without, however, severing the large blood vessels. After being sustained for some time by artificial alimentation, he died.

3. A robust mischievous imbecile, known to be disposed to injure his skin, but not suspected of eroticism, retired to bed in good health. He was found in the morning with a frightful mutilation of the penis, scrotum, and testes. He had inflicted the wounds with a sharp portion of the chamber-utensil, which he had broken. The hæmorrhage was excessive; but he seemed to enjoy the consternation of the attendants, and made a joke of the whole affair. Castration was complete, but the eunuch lived for many years after this event.

4. A religious melancholic, with a suspected but not well-marked tendency to self-mutilation or suicide, slept in a dormitory with other patients in M—— Asylum. It was discovered one morning that he had, in the night, quietly gouged out his right

eye, and left it hanging by a few injured tissues outside its socket. The eyeball was removed, and the patient made an excellent recovery.

5. M. E. B., an attenuated religious melancholic, and a most determined suicide, with marks of injuries inflicted with a view to self-destruction, very recently admitted into the C—— Asylum, was given in charge of a trustworthy attendant, who was instructed to watch her carefully. An hour and a half after her admission, I was hurriedly sent for, to attend to an injury which she had inflicted on her right eye. I found the organ removed from its place, and lying on the cheek, bleeding and totally disorganized and collapsed. After some little hesitation as to the propriety of severing the lacerated tissues that still suspended the alleged offending and now sufficiently punished eyeball, I returned it to its place, where it has ever since remained, sightless, and much reduced in size; and if not "a thing of beauty," at any rate a credit to the *vis medicatrix naturæ*, or to a weak solution of carbolic acid, with which it and the surrounding injured structures were daily dressed.

A consideration of these cases, which a more extended experience than mine could doubtless easily supplement, entitles me to question the propriety of the total abolition of mechanical restraint, and of the means which have, from humane, but I think erroneous considerations, been substituted; and emboldens me to advocate its use for securing the safety of such patients as are bent upon self-mutilation or destruction. Extremes are known to be hurtful in every line of life, but, strange to say, the utmost amount of liberty is, if not already granted, strenuously advocated for our asylums; and the cry, emanating chiefly from those who are ignorant of the difficulties to be encountered in the discipline and management of the insane, against locked doors, strait-waistcoats, bolts, bars, in short, prohibitory means of any kind, even if the patient goes to the extent of tearing himself or his neighbors to shreds, is now almost universal, although patients themselves sometimes petition for restraint. Indeed, in some places, where accidents are not unfrequent, and suicides not quite unknown, all similar provisions are ignored. To those who, by experience, understand the many and great difficulties of managing a class of people with intractable and wantonly destructive propensities, this method of "non-restraint" treatment appears inadequate to cope with a morbid determination to injure or kill.

Notwithstanding the general appeal for forbearance, freedom, and do-nothingism, it will ever remain evident, that cases appar-

ently requiring restraint, a moderate and harmless use of mechanical contrivances to secure that end will be less hurtful to the patient, and more likely to guide him in safety through a war of mental elements, than a living force that may become too lax or too harsh in its exercise. It is next to impossible to watch some patients with sufficient assiduity to prevent their carrying out their dangerous designs upon themselves or others. Their intention is so fixed, their determination so strong, and their vigilance for "opportunities" so sleepless, that whenever an attendant's eye or hand is removed from them, they injure or destroy whatever may excite their anger. I knew a lady so determined upon self-destruction, and so totally regardless of all moral suasion, that she tried to swallow pins, nails, and such other hurtful articles, and to set fire to her clothes; nor could she resist the temptation of asking me for a knife to cut her throat. A moderate use of innocent restraint saved her life, as doubtless its absence would have led to new attempts at destruction. A second lady, to my knowledge, set herself on fire in a house where she had all the freedom that the enthusiasts for "non-restraint" would have heartily admired, and had burned her body so frightfully that she lived only for a few hours. Numerous examples could be adduced to show that death and other serious evils have frequently resulted from the non-adoption of gentle and humane mechanical contrivances to prevent a patient from executing his wild designs. Even the "camisole" and similar instrumental expedients have failed to secure safety, a result demonstrating at once the desperate character of the cases to be dealt with, how dangerous the struggles which must ensue when manual restraint is trusted to, and how ineffectual must often prove even the humanely directed exertions of a trustworthy attendant. When such means are resorted to in private houses, difficulties must be greatly multiplied. Unenlightened benevolence may probably blame me when I suggest a linen inanimate strait-waistcoat as being preferable to the muscular force of two or three strong, rough, and certainly not passionless attendants, in cases similar to those cited, or when a patient, surgically treated, is restless and refractory; when for an excited and dangerous lunatic I prefer a padded room to one in which he can injure himself or break my head. Liberty to a person not entirely delirious or demented is, no doubt, dear, and should never be denied when experience has proved its advantages; but when it tends to the patient's or his neighbor's injury or destruction, it assuredly becomes a duty to curtail it to the extent and in the manner that can be proved to be the most desirable.

It is my firm conviction that the absence of mechanical restraint is the cause of the great majority of accidents, and of many of the suicides that take place in asylums; and that at the present day a diminution of the freedom of the patient, by restraint or seclusion, would minimise, and perhaps abolish, these undesirable items in the statistics of asylums. Coercion from the very beginning, in suicidal cases of grave import, would doubtless save life, and much anxiety to those in charge. In such cases it should, I think, be unhesitatingly adopted, and continued as long as the morbid state of the patient necessitates such a measure. The cases requiring its continued adoption form only a small percentage of mental ailments, and they usually improve under judicious treatment. The great object is to save the patient from his own excitement and violence; and any course that secures this, in a harmless way, seems justifiable and right, however much it may be against the dictates of those whose sympathies will not allow them to see any virtue in it. Entertaining the opinions I express, I should not hesitate to recommend mechanical restraint in cases of acute mania when the patient is not merely incited to destroy all around, but may exhaust his strength, engender disease, and thus precipitate that fatuity which so frequently follows such paroxysms. In addition, it might conveniently be resorted to, as an instrument of harmless reproof, in cases where "temper" and original wickedness, plus insanity, disregard moral discipline, and defy constituted authority.

Quis Custodiet Custodes? We give, from the same number, extracts from an article with the above heading, which recounts the homicides and injuries inflicted by persons of questionable mental condition, both within and without asylums, during the short period of five months, as recorded in a limited number of periodical publications. This record conveys a well deserved rebuke to those who advocate not only the disuse of bolts and locks and entire freedom in going and coming, but advance other utopian ideas inconsistent with experience and sound judgment. There is also a broad hint that some form of restraint, not only in the way of locked doors, but even of a personal character might

have been useful if they were not actually demanded by the circumstances of these cases.

For nearly a quarter of a century I lived amid a densely crowded population, where the maelstroms created by human passion, prejudice, poverty, whirled incessantly around, regurgitated into the asylum which I superintended the wrecks, the refuse, the debris which it had engulphed, and which, upon examination, impressed upon me the conviction that the consequences of mental diseases in the present very much resembled those which had been described in former ages. I am now removed to a considerable distance from the central heart of the circulation of the Empire, but am neither inaccessible nor inattentive to the pulsations which indicate the transmission of nutritive or enfeebling influences to the extremities of our body-politic. In marking these my only Sphygmograph, the public press, which I readily confess is in no degree more trustworthy than the instrument the name of which I have borrowed, indicating little more than that something is wrong, leaving the discovery of what that something is to other and collateral means of exploration. There are too often contradictory tracings, and this is the text of my present paper. It is necessary, however, to premise that my "Public Press" does not embrace such a catena of publications as may be found even in a provincial reading-room; that it consists of nothing more than one weekly medical journal, one London weekly, and one local daily newspaper; and, lastly, that these sources of information, as they are assuredly not exhaustive, are as certainly not exhausted, so that the materials are, in all probability, less numerous and less pertinent than those which are passed by unnoticed. From such authorities I have learned that my opinion as to the immutability or indelibility of forms of derangement and degeneration were altogether erroneous and untenable; that the type of mental disease had changed; that the Mania Furibunda described by former psychologists, and sculptured by Cibber, was antiquated and forgotten; that there have been no pyromaniacs since Jonathan Martin, no insane parricides since Dodds, no insane regicides since Oxford, no homicides since the martyrdom of Myer and Lutwidge; that walls have been leveled, bolts and bars melted into ploughshares, and that seclusion in an asylum was now converted into sport in Arcadia. Now, I am not old nor soured enough to snarl sceptically at all this, to doubt that the reign of humanity is twice blessed, or to set any limits to the powers of nature or of moral

medicine. But I am sadly perplexed when there comes, through precisely the same channels, the hope-inspiring and the blood-stained streams almost mingling together, the following facts:—1. That within a few months an attendant was killed by a lunatic in Leicester Asylum; 2. That one lunatic killed another in Durham County Asylum; 3. That a lunatic was killed in Greenock Poor-house Asylum, and that an attendant was accused of killing him; and 4, that a lunatic was reported to have had his ribs fractured, &c., by an attendant in Northwoods Asylum, both being intoxicated at the time, the assailant being subsequently committed, tried, and sentenced in the mitigated penalties of a fine of 15*l.* and two months imprisonment. Now, my object is not to attribute the slightest degree of culpability, malpractice, or misadventure to any one connected with the above deplorable accidents, but simply to show that there must have been struggle, violence, fury, ferocity previous to the death blow. Nor, in adverting to one hundred and sixty instances of accidents, including several suicides, stated to have occurred within the safe and sacred precincts of asylums in Scotland in 1874–75, in the Annual Report of the Commissioners—which is the only record of such important data which we know of—would we breathe or harbor the suspicion that there was either negligence, or carelessness, or inadventure, or the absence of such precautions as might have prevented fractures and blows and burns, as our only wish is to direct attention to the sad evidence afforded that the Millennium has not yet arrived in Bedlam.

In a report, from a person rather pedantically designated "the Lancet Commissioner," on Brookwood Asylum, in No. 23 of the *Lancet* (4th December 1875,) there is a great deal of well-intended but certainly illogical commendation of the minimisation of seclusion even as a means of treatment. I have always conceived that the morbid as well as the immature mind could be governed and guided to self-control and obedience to recognized rules by a certain amount of restriction, solitude, privations curatively imposed; that the insane should be treated and talked to as if they were insane; that it is of vast importance to convince them that they are in a lunatic asylum; that they are sufferers from a grievous disease; that all around is intended to be remedial; that seclusion is not penal, but protective against light, sounds, provocations, violence, and their own passions. There are likewise in the same article many romantic descriptions of embellishments, flower-stands, pianos, wall-paper, floorcloth, and color. The reporter must infallibly have been a disciple of the school of Dr. Ponza of Ales-

sandria, Piedmont, and F. Secchi of Rome, who, after experimentation of the immediate effects of the solar ray and colored lights, have reached the conclusion that blue and violet rays are calmative, red exciting, &c.; and that curative effects have been obtained by placing patients in chambers differently colored, according to the form or degree of the malady, and to the object desired. It is very doubtful whether such æsthetical adjuncts can enter into the Southern Saxon mind as a means of cure, tranquilization, or even pleasure; but as we do not know the effect of beauty on the uncultivated, such provisions can not be regarded as supererogatory. But how utterly impotent such instruments prove, even when associated with the skill and sympathy of an experienced physician, in appealing to the savage, sanguinary, almost inaccessible nature of certain classes of lunatics, is most painfully exemplified by an occurrence which took place in that very asylum, amidst all these flowers and signs of humanity. The accident is thus stated in the *Journal of the British Medical Association* of 29th January 1876: "As Dr. Brushfield, medical superintendent of the Brookwood Asylum, was medically attending to a male patient in one of the wards of the asylum on Saturday morning, the latter suddenly seized an earthen vessel, and with it dealt the doctor a running fire of terrific blows on the head. Dr. Brushfield fell to the ground, but the lunatic, with savage fury, continued his attack. Fortunately, two of the attendants, alarmed by the noise, entered the ward. They immediately sprang on the madman, and at once disarmed and secured him. Dr. Brushfield has received several scalp-wounds, and lies in a condition of great suffering and danger."

Another pleasing because portentous and prophetic murmur has reached me, that the great majority of the insane are to be uncloistered; that they have become, or been rendered by wise and judicious management, so teachable and tractable, so gentle and self-guiding, that asylums will be dispensed with, or converted into hospitals for the small minority of acute cases of nervous disease which now occur, or into comfortable club-houses for dipsomaniacs; that Gheels and agricultural colonies are to be created in every county; that, emancipated from the thraldom of special arrangements or special physicians, they will be committed to the governance and muscular therapeutics of honest "hewers of wood and drawers of water," or to the superintendence of medical practitioners untrammeled by previous training or experience, and through such instrumentality assume the position of ornamental loiterers in our waysides and commons, or of prudent and produc-

tive laborers and artisans, as members of the industrious classes. It has even been rumored, that in certain districts whole groups of these David Gellatlys and Madge Wildfires have been gathered together, either as inoffensive disturbers, or co-operatives in the common weal. It would be invidious to cast the shadow of doubt upon the brilliant and beautiful picture thus presented. Nor would I introduce a demurrer as to the difficulties or dangers of imperfect guardianship, of economical speculation, of nullifidian treatment, which have been suggested by the cautious, the circumspect, or the timid—not even a caveat as to the unavoidable accidents, the escapades, the offenses to public order and decency, which characterize the strong as well as the simple-minded. The only interest which I desire to attach to the subject is as to the influence which must be exercised by the presence of many (or even by any) lunatics mingling free and unfettered and uncontrolled in society, upon the safety, comfort, well-being, even moral health of its sane members. In order to approximate to an estimate of the nature, though not of the extent, of this influence, I have not, except in one or two cases, sought for information as to the fate or fortunes of lunatics who, though living among their fellow-men, have been recognized legally as such, who are superintended or subsidised by public boards or other constituted authorities, or who have passed the ordeal of previous confinement in an asylum; but have limited my inquiries to such individuals as have revealed their condition exclusively by the act or acts which have drawn public attention to their history. My course has consisted in extracting the notices of all such acts contained in the newspapers previously enumerated since the 24th of October, 1875, to the present day, (25th of March, 1876,) and I now submit the epitomised results of my observations.

Then follow the particulars of forty-nine cases, including suicides, homicides, deaths from want and neglect, violent homicidal attacks, injuries inflicted upon self and others, and conduct such as brought them under legal supervision and control. These are classified under the various forms of insanity, cases of delirium, from rum and disease, and those occupying debatable ground between marked eccentricity and insanity.

From an article in the *British and Foreign Medico-Chirurgical Review*, for July, 1876, entitled, "Lunacy

in the United States," we make a further extract upon the subject of restraint.

Next to mural and manual means indispensable in bringing the insane under either moral or hygienic influences is mechanical restraint. One and all of American alienists concur in believing that coercion is a powerful adjuvant, in itself a moral instrument, and indirectly required in the application of medical remedies for the restoration of bodily health and for the preservation of life. This general accordance is confirmed by a vote of the Medical Association, in 1874. While these scientific men are unanimous as to the propriety or expediency or usefulness of physical restraint, they differ widely as to the reasons and circumstances demanding its application, and as to the extent to which it may be carried, many of its advocates scarcely resorting to it at all, and others resting upon it as a frequent and potent aid. This creed does not harmonize with that formerly universal in Britain, but, as was shown in an article in this Journal lately, now accepted with a less rigid and more relaxed orthodoxy, and met in some quarters with scepticism. Non-restraint became the watchword of a party, or of a persecuting party which denounced all who rejected allegiance, all who preferred a thong to a threat, the embrace of a camisole to the hug of rough and determined hands, as cruel, unconscientious, and as incapable of appreciating the principles of medicine or the dictates of humanity; therefore we dislike it. That such a resource can be dispensed with is perfectly true, but so can medicine, as is done by certain nullifidian physicians, whose practice, if not their profession, is limited to fresh air, good food, and amusement run mad; but what we chiefly object to is the denial of fellowship and sincerity to those who differ from us, the reluctance to admit that they should pursue a mode of practice inconsistent with our own, and that they are not actuated by the same high motives and by the results of an experience as wide as our own, though differently interpreted. The calm, dignified, pacific rebuke with which American alienists have met such insinuations should be compared with the harsh insinuations which are still directed against them. We lately conversed with a superintendent who, led, perhaps awed, by the example of Conolly, never resorted to restraint, whose career has nearly reached that crisis where our professional as well as our personal errors come to be reviewed and repented of, and whose concluding sentence was—"Three things I bitterly regret—1st, that I trusted

too little to stimulants; 2d, too little to opium; 3, too little to restraint."

In the same article, which is an extended review of the history and progress of the care of the insane in the United States, from the Colonial times to the present, among other subjects, that of labor receives attention, as follows:

It has been supposed that the absence of due labor involves the presence of undue restraint.

Dr. Ray, in 1865, appreciates the importance of occupation to the health and happiness and recovery of his patients; his experience has convinced him that although of great moral it is of little pecuniary benefit; that by multiplying attendants out-of-door labor can be indefinitely extended, although numerous patients are unfitted by habit, trade, illness or exhaustion for such exertions, and others prefer or are best capacitated for household duties and handicrafts, and that he succeeded in bringing about one-fifth of the community under his charge within the operation of this powerful agent.

Dr. Gray, New York, calculates that, after making the required deductions for age, sex, illness, and incompatibility, with the form or stage of the mental disease, his industrial corps would amount to twenty-five per cent., although his annual reports reduce the proportion of actual workers to eighteen per cent. In the institution over which he presides it is asserted that workshops and schools initiated by his predecessor, Dr. Brigham, have been abandoned. Dr. Wilbur, who has advanced this statement, has recently visited this country for the purpose of reportiug to the Board of State Charities the results of his examination of a number of British asylums, and produces rather a sensational effect by placing the sixty-eight per cent. of patients employed of the nine thousand seven hundred and eighty-six seen in contradistinction to the happy idleness which he attributes to the inmates of similar hospitals in his native country; by encomiasying the tranquility, docility, and contentment of the inmates, the beauty and ornamentation of their abodes, and the non-existence of physical appliances. The Doctor's facts are of course inexpugnable, but his impressions are derived from a few selected, celebrated establishments, and are contemplated through an atmosphere so *couleur de rose* than an Englishman standing by his side, but embracing

the whole field of vision, would scarcely recognize the picture, and might be inclined to look forward to such havens of rest as a premium upon folly and a solatium for all the ills that life is heir to. That all lunatics may be after a fashion engaged in work, can at times be taken into the open air, can be indulged in an almost unlimited amount of freedom, has been demonstrated; but the inquiry arises, is such latitude beneficial? Restrictions to the sane mind prove necessary moral checks, active exertion proves a bane as well as a blessing in different cases, and it should be recollected that Guislain condemned more emphatically than the Americans toil and travail and muscular activity as inducing hyperæmia in all the tissues, a phraseology which would be now rendered into nervous excitement. When it is considered that the theme of almost all physicians and philosophers in the States have been that insanity is a bodily disease, that it owes its origin in a far larger proportion of cases to physical than to moral causes, that no case of mental disease can be examined where organic changes are not discovered, and no necropsy performed without the detection of conspicuous structural degeneration, it can readily be understood that the therapeutic means of restoration adopted have been very numerous.

This is quite a different estimate from that Dr. Wilbur puts on his own observations, in the pamphlet printed by the State Board of Charities, and to which reference is made. The only comment we have to make is, that if Dr. Wilbur had practical familiarity with the subject of insanity and any adequate personal knowledge of such institutions in his own country, he might not have seen such wonderful things abroad. There could then have been no possible excuse for his misstatement, that in the Asylum at Utica, the workshops established by Dr. Brigham, have been in the main abandoned, while the truth is, that they, being found entirely inadequate, have been increased more than four-fold in size and efficiency.

The whole article is an interesting resumé of the subject of which it treats. It is evidently from the pen of one entirely familiar without the facts and the

principles, and who writes without prejudice. In concluding the review of asylum work in America he says:

> In tracing the history of American psychiatrics we are constrained to regard them, not as offshoots or branches from our parent stem, but as a part and parcel of ourselves. Brethren inhabiting an adjacent region somewhat different in climate, natural productions, and social polity, but who have passed through similar courses, cataclysms, tedious and tiresome labors and lustrations; who have participated in our errors, excellences, principles, and prejudices; who have met with the same obstacles, epochs, resting-places in their progress, and who have reached, not perhaps a strict community of sentiment, but a close approximation in the estimate of the grand interests at stake.

He also speaks of the insane in various periods in the United States, and concludes with an analysis of the laws in operation in the different States of the Union.

REPORTS OF AMERICAN ASYLUMS, 1875–1876.

NEW YORK.—*Annual Report of the New York City Lunatic Asylum, (Blackwell's Island,)* 1875. Dr. R. L. PARSONS.

There were in the Asylum, at date of last report, 1,165 patients. Admitted since, 412. Total, 1,577. Discharged recovered, 127. Improved, 52. Unimproved, 60. Improper subjects, 7. Died, 98. Remaining under treatment, 1,233.

Five pavilions, accommodating about 60 patients, each have been completed, and two of them are already occupied. The Institution has now a capacity for 950 patients, but is overcrowded to the extent of about 300 beyond the proper limit. A full description of the pavilions is given. They are of wood, one story high, 165 feet in length, by 28 in width. The dining room is located in the middle of the building; the attendants' and store-rooms are provided in an extension from

the center of the pavilion. The service rooms are placed in an extension upon one side, at the end. They are heated by stoves. The ward is used as a dormitory, and a day-room for the patients. The cost of these buildings, including water-closets and fixtures for lighting and warming is $6,000, or an average of $100 per patient. The advantages and disadvantages of these pavilions are presented in the report. The opinion is expressed, that while in each case, those only who are in charge of institutions, can decide upon the utility of such structures, in view of their own peculiar circumstances, at this Asylum, they have been found economical and satisfactory. Improvements upon the grounds, in the steam heating apparatus, in the dietary and clothing of patients, and an increase in the number of attendants, are reported. These changes are such as have been demanded for a long time, as the insane of the County of New York have not been cared for in a manner either creditable to the generosity of the city, or even in accordance with the principles of humanity. The present Board of Commissioners deserve praise for their efforts to alleviate the condition of the insane, but they should not rest satisfied with the present state of affairs. Additional medical officers are needed, and increased remuneration should be granted. The corps of attendants is still inadequate to perform properly the arduous duties they are called upon to fulfill. More extensive accommodations are imperatively demanded, to enable the Institution to accomplish the good which is in the scope of its intentions, viz: the cure of the insane. All other requirements being fully met, such overcrowding, as this Asylum is constantly subjected to, is alone sufficient to impair its usefulness. All of these wants are recognized, and brought to the attention of the board in the report before us.

Annual Report of the New York City Asylum for the Insane, (Ward's Island,) 1875. Dr. A. E. MACDONALD.

There were in the Asylum, at date of last report, 673 patients. Admitted since, 401. Total, 1,074. Discharged recovered, 106. Improved, 75. Unimproved, 128. Not insane, 25. Died, 147. Total, 481. Remaining under treatment, 593.

The admissions are less by fifty-five than during the previous year. This decrease is not attributed to any diminution in the occurrence of insanity, but to the stringency of the new law regulating admissions, and to the closer scrutiny of the applications regarding residence and ability of patients to pay for their support elsewhere. The large number discharged unimproved were transferred to another institution of the department, the wards of the Inebriate Asylum, then nearly empty. The use of this building has obviated the necessity for the construction of additional buildings.

Some of the tables presented are important, on account of their practical bearing upon questions of interest in the specialty. The tabulation of habits of the four hundred and one admissions, shows that two hundred and eighty were intemperate, ninety were moderate drinkers, and only seventeen were abstinent, while in fourteen cases the habits were not ascertained. This record is confirmatory of those of former years, and such as to leave "no doubt in the mind of the writer that more than any one other active cause—more than all active causes put together—intemperance is responsible for the mental aberration of the patients, at least in this special Asylum." This is a striking fact, and shows to what extent this vice prevails among the laboring and dependent classes of this great city.

The table of hereditary predispositions shows that in two hundred and thirty-nine cases in which the

facts were obtainable, there were but forty-one in whose history there was not present such hereditary conditions as might be considered influential in predisposing the insanity of the individual.

A table is presented giving the new dietary scale, and an exhibit of the daily cost of maintenance since its adoption. The average for the year is 32.7 cents per day per patient, an increase of five cents only over previous years for provisions. The greater variety and more appropriate food, and this small additional sum, gives a marked improvement in the comfort and condition of the patient.

Under the head of "Medical Notes" are given the remedies employed in the treatment of patients, their doses and the general indications for their use.

The opportunity for pathological investigation has not been neglected. Three autopsies with microscopical examinations are presented. The brain in one case, that of an idiot, weighed 67 ounces, without the membranes. This is said to be the heaviest brain thus far recorded.

A change in the organization of the institution, by creating the office of Medical Superintendent, and substituting that of Steward for Warden, is reported. The government of the Asylum is now analogous to that of similar institutions, which has been found by long experience to be the most efficient mode of administration. The changes in the government of the institution, and the improvements in the clothing and dietary of patients already inaugurated and in contemplation, place the Asylum of the city upon a much better footing, and add largely to their power to care for the insane in a proper and creditable manner; and we hope that the Doctor will be able to carry out his views, and bring the institution to such a standard as a metropolitan hospital should represent.

NEW YORK. *Fifth Annual Report of the State Homœopathic Asylum for the Insane:* 1875. Dr. H. R. STILES.

There were in the Asylum, at date of last report, 53 patients. Admitted since, 99. Total, 152. Discharged recovered, 30. Improved, 15. Unimproved, 13. Not insane, 1. Died, 11. Total, 70. Remaining under treatment, 82.

The institution has, during the year, received a large percentage of chronic cases, which has reduced its percentage of recoveries. This upon the whole number under treatment has been 19.7 and deducting all cases of over one year's duration, the percentage of recoveries for the nineteen months, since the opening of the Asylum, rises to 31.5.

Our medical treatment continues to be purely according to the homœopathic law of "*similia similibus curantur*," and entirely without resort to any of the forms of anodyne, sedative or palliative treatment so generally in use (even among physicians of our own school) in cases of mental disturbance. Not a grain of chloral, morphine, the bromides, etc., etc., has ever been allowed in our pharmacy, or given in our prescriptions, nor do we feel the need of them even in our most violent cases of acute mania. A careful study of the mental and physical symptoms, together with a rigid adherence to the Hahnemanian principles of selection, and administration of remedies, has enabled us to meet the requirements of each individual case with comfort and success.

Much attention has been paid to the moral treatment, and a large part of the Superintendent's report is occupied with the details of rides, dances, and gatherings of patients for amusement and entertainment. The wants of the Asylum in the way of buildings for the help employed, for store-rooms, work-shops, and for a mortuary, are noticed. The need of some provision for obtaining a medical and scientific library, and for supplying the current literature of the profession, is brought to the attention of the Board.

NEW YORK. *Report of the Providence Lunatic Asylum:* 1875. Dr. WILLIAM RING.

There were in the Asylum, at date of last report, 75 patients. Admitted since, 62. Total, 137. Discharged recovered, 29. Improved, 13. Unimproved, 8. Died, 9. Eloped, 2. Removed, 1. Total, 62. Remaining under treatment, 75.

There were also received during the year: Inebriates, 44. Opium habit, 2. Total, 46. Discharged, inebriates, 40. Opium habit, 1. Died, 4. Total, 45. Remaining, 1.

PENNSYLVANIA. *Annual Report of the State Lunatic Hospital:* 1875. Dr. JOHN CURWEN.

There were in the Hospital, at date of last report, 416 patients. Admitted since, 167. Total, 583. Discharged recovered, 38. Improved, 41. Unimproved, 55. Died, 33. Total, 167. Remaining under treatment, 416.

Twenty-five years have now elapsed since the Hospital was opened for the reception of patients. During this period three thousand nine hundred and eighty-eight patients have been admitted; of those discharged eight hundred and fifty-nine were restored; eight hundred and forty-seven improved; one thousand one hundred seventy-six unimproved; and six hundred and sixty-three died.

Dr. Curwen gives a recapitulation of the results attained during the existence of the institution, and also makes remarks upon the subject of insanity. The disastrous effect of the premature removal of patients from the Asylum, and the causes which influence friends in their action are given. The advantages of early treatment in all cases of insanity, both to the patient and the community, are appropriately stated

and enforced. The history of provision in the State shows, that to Pennsylvania is due the high honor of having established the first Asylum upon this continent, for the care of the insane; that following this, other institutions have been erected, and still others projected, in fulfillment of the design to provide the dif. ferent sections of the State, with asylums designed by location and size to accommodate all of the insane. The limited and properly supervised use of mechanical restraint, as employed in American Institutions, is advocated by arguments, founded upon an experience of its benefits to the patient restrained, and to those with whom he is associated.

A concise statement of the objects sought to be accomplished, and the method adopted for their attainment in the construction of asylums, their government, and in the occupation and amusements of patients, together with a list of the Trustees and Medical Officers, who have held position in the Hospital, fill out the report.

PENNSYLVANIA. *Report of the Commissioners of the State Hospital for the Insane, Warren, Pa.:* 1876.

The Commissioners report that they have protected the portions of the building which have already been put up, and are now devoting all the labor to the construction of the extreme sections, which will be used in the treatment of the most disturbed patients. This is the class for which accommodations are first and most needed. The officers can reside, till the center building is completed, in the structure put up for business purposes, during the erection of the Hospital, and in a dwelling house which is on the property. These extreme wings are now up to the third floor of joist where they are covered in for the winter. The

hope is expressed that during the next season of 1877, they may be put under roof and that other portions, may be so far completed that in 1878, the Hospital may be able to receive patients. They report that the work has been well and economically performed, and express the belief that the whole Institution will be finished within the amount originally fixed upon. They request from the Legislature an appropriation of $200,000 for the two following seasons.

DISTRICT OF COLUMBIA. *Report of the Government Hospital for the Insane:* 1876. DR. CHAS. H. NICHOLS.

There were in the Hospital, at date of last report, 718 patients. Admitted since, 213. Total, 931. Discharged recovered, 84. Improved, 36. Unimproved, 1. Died, 66. Total, 187. Remaining under treatment, 744.

The Doctor reports that the enlarged assembly room serves its purpose admirably, that it will accommodate all of the household, both patients and employés, between five and six hundred in number, who can attend upon services. We quote from the report the following statement of investigations made regarding the ventilation of the building.

Assistant Surgeon D. L. Huntington, U. S. A., with two assistants from the Surgeon-General's Office, has recently made a series of observations with several carefully adjusted anemometers to ascertain the amount of air supplied to the Hospital by its fan. At the least speed at which it is customary to run the fan-engines (forty revolutions per minute, the fan making two revolutions to one of the engines) the supply each minute was found to be 54,784 cubic feet, or an average of seventy cubic feet per minute to each individual of the main house. If the house contained only the number of inmates it can suitably accommodate, the air supply would be over one hundred cubic feet per minute to each individual. This air supply is absolutely certain, irrespective of seasons or wind-currents. Of course, in the warm season, when the windows are raised, the wind-currents often supply and change the air

much more rapidly. Such a rate of air-change supplemented by scrupulous cleanliness, and the disinfection of water-closets and urinals, renders the condition of the air of the Hospital as high, perhaps, as it is practicable to attain in a house as crowded as the male wards of this are. It should be stated that two detached buildings which accommodate eighty (80) patients are not included in the system of forced ventilation.

We are glad to see this practical estimate of the value of forced ventilation. When the Asylum at Utica, adopted this system, in 1854, the first fan introduced, experiments with an anemometer showed that it discharged one thousand cubic feet of air with every revolution, which was doubled afterward by the introduction of another fan. A recording instrument was attached and a careful record was kept for ten years, with the following result.

The average amount per minute, during the year, has been 106,333 cubic feet, or about 152 cubic feet per minute, night and day, to each person, assuming 700 as the average population.

In the months of January, February, March and December, the supply is 84,000 cubic feet per minute, or 120 cubic feet to each person. In April, May, October and November, it is 95,000 cubic feet per minute, or 137 cubic feet to each person; and in June, July, August and September, it is 140,000 cubic feet per minute, or 200 cubic feet to each person.

The cost is not great considering the benefits secured. Irrespective of heating, the amount of coal used to force in 106,333 cubic feet per minute is 1,440 pounds per day, or one pound of coal per minute. This would be a penny a day for each person if the coal cost $10 per ton. The weight of the air thrown in per minute is 8,971 lbs.

VIRGINIA. *Report of the Eastern Lunatic Asylum:* 1876. Dr. W. H. BLACK.

There were in the Asylum, at date of last report, 305 patients. Admitted since, 52. Total, 357. Discharged recovered, 24. Improved, 5. Unimproved, 2.

Eloped, 2. Died, 20. Total, 53. Remaining under treatment, 303.

The Doctor reports the destruction by fire on the 8th of January last, of the building in which were the chapel, amusement hall, store room, kitchen, bakery and dining room for employés. As the State Legislature was in session, a committee of the same was appointed to visit the Institution and ascertain the cause and origin of the fire. They report that in their opinion the fire originated from a defective flue in the bakery. They also report that the means provided for extinguishing fire were not in good condition, and were not properly utilized. The hose was rotten and worthless; the engineer was living at a distance from the Asylum, and thirty-five minutes elapsed before he arrived and commenced the use of the fire pumps. From these and other causes mentioned, the fire was only controlled in time to save the other structures. The estimated loss by the fire was $16,000. The great want of the Institution is a more ample supply of water, as during the past year this has not been adequate for the sanitary uses of the Asylum. Owing to inability of the auditor of the State to furnish the appropriation of $40,000 made by the last Legislature, the erection of the new building, so much needed to supply increased accommodations, has been postponed.

VIRGINIA. *Report of the Central Lunatic Asylum:* 1876. Dr. RANDOLPH BARKSDALE.

There were in the Asylum, at date of last report, 263 patients. Admitted since, 32. Total, 275. Discharged recovered, 23. Improved, 1. Died, 17. Total, 41. Remaining under treatment, 234.

Owing to the increase in the number of colored insane, and the lack of accommodations for the applicants

for admission, a recommendation is made for the erection of a new asylum capable of receiving and caring for 400 patients. This recommendation receives additional support from the fact that the lease of the present farm and buildings will soon expire. It is considered a matter of justice and economy on the part of the State to increase the capacity of the Institution either by increasing the size of the present buildings or to secure a new location and erect new structures. One hundred applications were made for admission the past year, of which number but thirty-two could be received, forty-eight are already reported as confined in the jails and several counties have not been heard from in answer to circulars sent asking information upon this point.

North Carolina. *Report of the Insane Asylum of North Carolina.* Dr. Eugene Grissom.

There were in the Asylum, at date of last report, 249 patients. Admitted since, 44. Total, 293. Discharged recovered, 11. Improved, 6. Unimproved, 3. Died, 9. Total, 29. Remaining under treatment, 264.

The report is largely occupied with an account of the work done upon the buildings in improvements and repairs. This will add much to the economy and efficiency of administration. The necessity for these changes and reconstructions have been pointed out in previous reports.

Oregon. *Biennial report of the Oregon Hospital for the Insane:* 1875–76, Dr. J. C. Hawthorne.

Biennial report of the Visiting Physician. Dr. Curtis C. Strong.

There were in the Asylum, at date of last report, 195 patients. Admitted since, 142. Total, 337. Discharged recovered, 53. Improved, 26. Unimproved,

3. Died, 33. Escaped, 3. Total, 118. Remaining under treatment, 219.

The visiting physician reports the management of the Asylum as without fault. It is favorably located, well supplied with water, and all the material wants of patients are fully provided for. It is suggested that provision be made by the State to enable the Superintendent to attend the meetings of the Association, and the advantages to accrue from the adoption of such a measure are pointed out. This is a matter of importance to the Institution and the interest of the insane, and there is no direction in which the outlay of an equal sum will make better returns to the State. This is so fully appreciated in the Eastern Asylums that most of the Boards of Trustees annually provide for the presence of some of the medical officers at these meetings. The second suggestion for the establishment of a library of standard works relating to the specialty should receive attention and the foundation of such a library should be speedily begun.

CALIFORNIA. *Napa State Asylum for the Insane:* 1876. Dr. E. T. WILKINS.

The report for the quarter ending September 1, 1876, furnishes the following data.

There were in the Asylum, June 1, 179 patients. Received till September 1, 156. Total, 335. Discharged recovered, 40. Improved, 12. Unimproved, 6. Not insane, 11. Died, 11. Eloped, 6. Total, 86. Remaining under treatment, 259.

Those discharged, not insane, were cases of intemperance. They were brought to the asylum in a state of excitement following a debauch, and in a few days having become quiet presented no evidences of mental disorder. The death rate is high because many of the

patients were, when admitted, in such a helpless and feeble state as to be unable to rise from their beds without assistance. The Asylum is now nearly completed, the cost of the buildings, exclusive of furniture, will be $1,400,000, in gold. It contains eight hundred rooms, including bathing-rooms, closets, clothes-rooms, basement and other rooms for employés. In addition, if desired, the attic story can at small expense be subdivided so as to make one hundred and twenty rooms for patients. The view of the buildings represent it as an imposing structure, the center of four and the wards of three and two stories. It is built of brick upon a granite foundation, and on the linear plan with retreating wings.

TRANSACTIONS OF SOCIETIES, REPORTS AND PAMPHLETS.

Twelfth Annual Report of the Board of State Charities of Massachusetts, to which are added Reports from its Departments, with an Appendix: January, 1875.

Since the Commission in Lunacy consisting of Dr. Allen and Wendell Phillips, has been discontinued by the Legislature of the State of Massachusetts, the Board of Charities is the only body specially interested in and reporting upon the subject of insanity and asylums. It is for this reason that we find the subject has received more than usual attention. It is treated of at length, by the Board, in the introductory and general remarks; this is followed by a report concerning the hospitals for the insane considered individually. The General Agent makes a statistical report concerning the treatment of State paupers in the asylums. The Secretary adds a general history of all the asylums, which is succeeded by an annual review of

the operations of each. In the appendix, to fully complete the subject, we have the consolidated statistics of all the institutions presented in tabular form.

The number of insane remaining in all the hospitals and asylums on the 30th of September, 1875, was 2,283. The whole number in the State is computed at 4,000. It is claimed that the State has provided far more hospital accommodation for the insane, in proportion to her population, than any other State in the Union. It is said 2,100 patients can be accommodated in the hospitals alone. This claim to precedence, may well be disputed by the State of New Jersey, which, with a population two-thirds that of Massachusetts, by the completion of the Morristown Asylum, has provided hospital accommodation for 1,550 patients; or in other words, for all the insane of the State.

The Board expresses the belief that hundreds of insane persons are drawn to the State by the room furnished in their institutions. This statement can hardly be true in view of the effort made by legal enactment to prevent the immigration of paupers and lunatics, and if true, reflects upon the Board for their want of success in carrying out the provisions of the law, though they report 650 persons removed from the State during the year, at an expense of $2,289.08. Of these 200 were transferred to the State of New York.

The mental status of these persons is not given, so we can not say how many of them are insane; but to seek out the legal home of all the dependent classes and to return them thereto, constitutes a large part of the duties of the Board.

The cost of the new hospitals at Danvers and Worcester is estimated at $2,500 per patient. This is further represented by them, by an annual interest account of $150, or $3.00 per week, which, added to the cost of

maintenance, gives $7.00 per week per patient as a total.

The belief is expressed that in the treatment of acute cases, the best results are attained in the smaller institutions, say of from 250 to 300 patients. This is in opposition to the view expressed by the Association of Superintendents of Asylums, who, at one of their recent sessions, expressed themselves as favoring institutions which will accommodate from 500 to 600 patients.

An analysis of the number of recoveries for a series of years does not show the same proportion to cases treated as formerly. The cause of this, it is acknowledged, is difficult to determine. The influences mentioned as possible causes, are a change in the character of the disease, overcrowding of institutions, and greater chronicity on admission. In the early history of the treatment of insanity, it was a common thing to discharge patients as recovered, when the maniacal excitement had subsided, and many were sent away as cured who retained their delusions and were still insane, though quiet and orderly. Of these some returned upon the recurrence of a paroxysm of excitement, to again swell the number of recoveries, and others passed into a chronic condition whose insanity was unrecognized. The permanence of a normal mental condition was rarely assured by a restoration to a healthy physical state, which is the only sure basis upon which to predicate a recovery. As regards admissions, at that time usually only the dangerous and most troublesome patients were sent to an asylum, the quiet, chronic class were either kept at home, or allowed to roam about the country. The law now reaches all classes, and makes their care obligatory upon the public. The necessity for employment for the insane, which should be regular and systematic in

character and adapted to each individual case, they make as a plea for small institutions. The tillage of the land is considered to be the kind of labor best adapted for the purpose, and regret is expressed that all the institutions are not so located as to possess the required amount of land. That at Taunton is described as poor, and only a limited portion can be put under cultivation. The Worcester Hospital will be more favorably situated in this regard in its new location. The Northampton Asylum is quoted as an example of what may be accomplished in economy of administration, by properly utilizing the land and the labor of patients. The example of some English and Scotch Asylums in leaving the doors of the wards unlocked, and giving the patients full personal freedom receives approbation. They say that the method is based upon the laws both of mind and body, and further, that by this means alone can the love of liberty, self-respect and self-government be developed and strengthened.

This kind of rhetoric needs but to be stated and to have attention directed to it, to show its fallacy and weakness. In every institution there is a class of patients to whom this liberty has for years been granted, and nothing has been thought of it. Some one classifies such patients in one ward, takes off the locks and "presto, change," a new era in the treatment of the insane is entered upon, and the single instance of the Fife and Kinross, or some other asylum, becomes an example to the world, a synonym of progress, and is quoted by a State Board as worthy of imitation by authorities of all institutions for the insane.

The prevention of insanity is spoken of as a most important topic of consideration, both for the profession and the public, and the Board expresses regret that it has received so little attention from the superintendents of

asylums, and say that on looking over fifty reports of asylums, but one reference is made to it. From a short extract from the Scotch Commissioners' report, the conclu. sions are drawn that insanity is a preventible disease, that measures put forth to that end would be successful, and that by prevention alone can the extent of the disease be materially diminished. The subject is not elaborated by the Board, but is left with the comment, that lunatic asylums, however numerous and well meaning, never have and apparently never will put much of a check to insanity, though they may do something to retard its rapid growth.

Such statements can have little value except as the utterance of truisms, unless the Board follows them up by close investigation into the domain of social science, discovers the elements out of which the evil springs, and suggests the practical methods by which they may be controlled or eliminated. It would seem that no more important subject could claim the attention of the Board, and moreover that it is directly in the line of their duty. There is, in the opinion of the Board, when considering the statistics of insanity, one favorable and encouraging fact, that there is no increase of recent insanity in the State, that is, there are no more attacks of insanity in a year than formerly, taking into account the increase of population. The report deals largely with the other charitable and correctional institutions of the State. Their workings are analyzed and various recommendations are made looking to their efficiency and economy of administration.

Mania Transitoria. By EUGENE GRISSOM, M. D. Read before the Medical Society of North Carolina, at its meeting in Fayetteville, N. C., May 4, 1876.

This is an address of about fifty pages, and is composed almost entirely of extracts from various authors,

giving cases of the so called "mania transitoria," or "impulsive insanity." The fairness of Dr. Grissom in presenting the views of the editor of this JOURNAL, and of other contributors to its pages, who have opposed the recognition of this form of insanity, renders unnecessary any review of the address. The author does not commit himself to a belief in sudden transient attacks of mania, but urges those who are called to investigate a case of impulsive insanity:

> To examine thoroughly the history of the family of the accused, for nervous diseases of any character, and especially the insane neurosis.
>
> To search the past life of the individual himself, for any indications of chronic but concealed insanity.
>
> *Especially, to ascertain if there is not evidence of larvated epilepsy, by a rigid symptomatic test.*
>
> And farther, to investigate the possible occurrence of any traumatic injury capable of giving rise to cerebral irritation of obscure character, and likewise to examine narrowly his record as regards physical vices of every character.

The Necessities of the Insane in Tennessee. A paper read before the State Medical Society, April 4, 1876. By WILLIAM P. JONES, M. D., late Superintendent Tennessee Hospital for the Insane. [Reprinted from the Transactions.]

Probably no resident of the State of Tennessee is more familiar with the wants of the insane, and with the advantages of treatment in an asylum, than Dr. Jones, the author of this paper. He has, not only as a superintendent, but as a legislator and a private citizen, labored to promote their interest, and to place the State in the foremost rank as regards its care of this unfortunate class. In this article he presents for the consideration of his medical brethren, the arguments both economic and humanitarian, which should govern their action, and which show beyond a peradventure the

duty of the State to carry into effect the proposition, which at one time received legislative sanction, to erect additional asylums in different sections, sufficient for the accommodation of its insane population. It is earnestly to be hoped that success may crown his long continued and disinterested efforts.

Spiritualistic Madness. By L. S. Forbes Winslow, M. B., Cantab, D. C. L. Oxon. Lecturer on Mental Diseases, Charing Cross Hospital, and editor of the *Journal of Psychological Medicine and Mental Pathology.*

The opinions of strangers regarding the effect and tendency of theories or beliefs upon a people are considered valuable, in that the judgment is less liable to be warped by prejudice, or by those influences which surround the immediate actors, or those in close relation to them. This statement, however, presupposes a full knowledge of the facts upon which alone a correct judgment can be founded. Applying this principle to the case before us, we find that our author disclaims all prejudice in advance, but we believe he has been misinformed regarding the facts, a circumstance which would render his opinion valueless. In proof, the assertion that "nearly ten thousand persons having gone insane on the subject (of spiritualism,) are confined in the public asylums of the United States," is so manifestly untrue, and such an aggravated exaggeration as at once to challenge attention, and call forth a prompt denial—and again, "the facile credulity in spiritualism which is spreading widely at the present day, must be considered as one of the principal causes of the increase of insanity. This assertion can be readily proved or disproved by reference to the tables of causation in the reports of American asylums. These we have carefully examined, and the number of cases in which spiritualism is given as a cause is insignificantly small, and in most institu-

tions it is not mentioned as a probable cause of the disease. The truth of the following statement, even when made upon the authority of American journals, we submit to the knowledge and judgment of our readers, "that in America the mediums become haggard idiots, mad or stupid: this has been frequently stated in American journals; and not only do the mediums become so, but also their auditors." This would be a melancholy spectacle, and one which would very properly command the sympathy of our foreign brethren. Dr. Winslow puts the number of mediums at 30,000, and of believers at 2,000,000. How many believers in the so-called spiritualism there are in the United States we have no means of judging. In their own publications they claim an enormous following. That this delusion is wide-spread in this country there can be no doubt, and the moral and social evils are correspondingly great, but that it produces much insanity can not be sustained.

We will not call attention to any more errors of statement which the article contains, as those already presented are sufficient to show the worthlessness of conclusions found upon such data. The pamphlet concludes with some comments upon witchcraft, and the moral epidemics of the middle ages, and with some cases of so-called spiritualistic madness.

Specialists and Specialties in Medicine. Address delivered before the Alumni Association of the Medical Department of the University of Vermont, Burlington, June 27, 1876. By M. H. Henry, M. A., M. D., Surgeon in Chief to the State Emigrant Hospital, New York, &c., &c.

Dr. Henry begins his address with a statement of his belief in specialists and specialties, under certain conditions. "*I believe in the specialist who has won distinc-*

tion by ripe clinical observation, a good knowledge of pathology, histology, microscopy and practical experience, and who after a good career in the general practice of his art finally decides to treat only a certain class of diseases."

The evils attending this division of labor are acknowledged to be of a serious character, and the result is perhaps best shown "in the wane of public confidence in the regular practitioner." "This is produced by the great number of incompetent specialists who attract people by various arts, so that now diseases that were skillfully and successfully treated in the early part of the century by the general practitioner are now sent from one "ologist" to another until the sufferer, exhausted of patience and means seeks in utter despair the assistance of the nearest quack." Next in order follows the suggestions of how to get rid of these evil influences, which operate in the production of specialists. This opens the way for a plea for a higher standard of education and culture in medicine, which is really the object aimed at in the address. It is illustrated by some instances of the failure of specialists to recognize forms of disease outside of their own limited circle of practice and experience.

Stricture of the Male Urethra, its Radical Cure. By FESSENDEN N. OTIS, M. D., Clinical Professor of Genito Urinary Diseases, College of Physicians and Surgeons, New York City, also, A Clinical Lecture on the Treatment of Incipient Stricture, by Otis' Operation, delivered at University College Hospital, London, March 16, 1876, by Mr. Berkeley Hill, Professor of Clinical Surgery in University College. [Reprinted from the *London Lancet* of April 8, 1876; together with explanatory remarks on the Treatment of Stricture and Gleet. By Fessenden N. Otis, M. D.]

These embrace a full and clear expression of the views of Dr. Otis upon this special topic.

The Treatment of anteflexions of the Uterus. By ELY VAN DE-WARKER, M. D., Syracuse, N. Y. [Reprinted from the *New York Medical Journal*, June 1876.]

In this article the Doctor records his opinion of the value of intra uterine stem pessaries in the treatment of anteflexions. This is founded upon his experience with their use, and in support of the view entertained he records his treatment of several cases, some of them presenting difficulties and requiring the exercise of unusual skill and of specially prepared instruments. The success attending the treatment of anteflexions, which are frequently so troublesome by the means ordinarily employed, by this form of pessary, would seem to be sufficient to encourage further investigation.

A Clinical Lecture on the Use of Plastic Dressing in Fractures of the Lower Extremities. By DAVID W. YANDELL, M. D., Professor of Surgery in the University of Louisville. [Reprinted from the *American Practitioner* July 1876.]

The lecture was delivered as an answer to the question, "*What was the best time to put up such fractures?*" The immediate reply was, "*The earliest possible moment after the bone was broken. The sooner the better.*" Then follow arguments to sustain the position and instances occurring in practice to illustrate it. It is an interesting and satisfactory response and will very properly carry the weight of an authority with it.

Degenerations of the Placenta as a cause of the death of the child. By CHARLES A. LEALE, M. D., [Reprinted from the transactions of the New York Academy of Medicine.]

This article consists of a number of illustrations of degeneration of the placenta and of conclusions drawn from the cases presented.

The Operation for Stone as observed in some of the London Hospitals, together with a Report of Cases from Private Practice. A. VANDEVEER, M. D., Professor of the Principles and Practice of Surgery in the Albany Medical College &c., [Reprinted from the Archives of Practical Surgery, October 1876.]

Report of the Committee on Medical Education made to the Medical Society of the State of California. By Jos. F. MONTGOMERY, M. D., Chairman. [Extracted from the transactions of the Medical Society of the State of California, for the year 1876.]

Annual Report of the Chief of Staff of Charity, Fever, Epileptic, Penitentiary, Almshouse, and Workhouse Hospitals, and of the Hospital for Incurables: Blackwell's Island, N. Y. Dr. DANIEL H. KITCHEN, M. D.

BOOK REVIEWS.

Contributions to Reparative Surgery—Showing its application to the treatment of deformities, produced by destructive disease or injury; congenital defects from arrest or excess of development; and cicatricial contractions from burns. By GORDON BUCK, M. D., New York: D. Appleton & Co., 549 and 551 Broadway, 1876.

The volume contains the author's own experience in the field of plastic or reparative surgery. It does not claim to be a thorough or exhaustive treatise upon the subject, though it presents many points of interest, and it is believed, contributes something to the resources of the surgeon's art. "There is no department of surgery where the ingenuity and skill of the surgeon are more severely taxed than when required to repair the damage sustained by the loss of parts or to remove the disfigurement produced by disease or violence, or to remedy the deformities of congenital malformations. The results obtained in such cases within the last half century are among the most satisfactory achievements of modern surgery."

The cases reported by Dr. Buck show admirable results following the treatment. They are classified as follows: First class, loss of parts involving the face, and resulting from destructive disease or injury. Second class, congenital defects from arrest or excess of development—as, hare-lip, &c. Third class, cicatricial contractions following burns. These latter deformities have usually been neglected, as being irremediable. The improvement in Dr. Buck's cases, may encourage the continuance of efforts for their relief. The different cases are illustrated by well executed wood engravings, showing the appearances before and after the operations. A chapter on transplantation of skin, giving the choice of material, the methods of transfer, the treatment of raw surfaces left to heal by granulation, and on sutures and their management, very properly introduces the subject to the reader.

Lectures on Diseases of the Nervous System. By J. K. Bauduy, M. D., Professor of Psychological Medicine and Diseases of the Nervous System and of Medical Jurisprudence, in the Missouri Medical College, &c., &c., &c. Reported by V. Biart, M. D., revised and edited by the author. Philadelphia: J. B. Lippincott & Co., 1876.

This book contains the lectures delivered by Dr. Bauduy before the class of the St. Louis Medical College, during the sessions of 1874 and 1875. These were reported and afterward subjected to revision by the author. They claim to cover the field of nervous diseases proper, and insanity. It could not have been expected that an exhaustive treatise upon these subjects could be condensed within the covers of such a volume. The attempt to accomplish this has been but a partial success, as the condensation has been at the sacrifice of style and of important matter. From the former, the sentences lack that cohesion and unity,

which present, would have made the work more pleasant reading, while the latter renders its imperfection more marked.

The portion devoted to nervous diseases comprises the larger part of the volume. The subject of insanity is disposed of in six lectures, while three are given to the discussion of epilepsy, one of which is occupied with its medico-legal relations, and especially with the case of Klingler, in which the author was an expert witness. General paralysis of the insane is dismissed with four pages, one of which contains the recital of two cases. There is really no history of the progress of the disease or of its pathology. A few of its most prominent mental and physical symptoms alone are noted. The same defect is noticeable in the account of other diseases.

The theory advanced regarding insanity, is in the main in accord with the best authors, and is free from the materialistic tendencies which are a prominent feature in some treatises. The book is free from exaggeration of statement and from attempts at display by the statistics of cases, or by recounting the success of the lecturer in his own practice. Finely spun theories and shadowy distinctions find no place in the volume. These are points of commendation. We can but regret, however, that the ground is not more thoroughly cultivated and that the subjects touched upon are not more fully treated, in a work intended for a text book, and for consultation by practitioners. The publisher has presented it in a very attractive style and the mechanical execution is excellent.

PATHOLOGICAL ANATOMY.

APHORISM OF PATHOLOGICAL ANATOMY OF THE NERVOUS CENTERS. By Prof. RUD. ARNDT, of Greifswald, Archiv 61, 4.

I. Pigmentary degeneration of the medullary sheath of nerve fibres.

In the intervertebral ganglia of a paretic with tabetic symptoms, who was confined to bed during the last three years of life, Arndt found a peculiar degeneration of the nerve fibres. The medullary substance was transformed into a grumous mass, of a dark brown color, which often but loosely enveloped the axis-cylinder. In isolating the fibres these masses frequently slipped out of the primitive sheath, forming aggregates quite similar to pigment bodies formerly observed by the author. (Archiv f. Psychiatrie I p. 775.) He concludes that these also very probably were products of a decomposition of the medullary substance, and that their occurrence indicates an atrophy of the nerve fibres, which commonly originates in the medullary sheath.

II. Tubular degeneration of the medullary sheath.

In partial softening of the spinal cord, and in grey degeneration, the author observed by examining transverse sections, colored with carmine, the medullary sheath to consist of concentric layers. As the medullary substance showed an inflated condition, there was no doubt of a pathological alteration; but still, Arndt believes that it also establishes the true structure of the sheath, which normally, very probably, grows by forming concentric layers.

III. Splitting of the axis-cylinder.

In the spinal ganglia of the same paretic, mentioned in No. 1, and in the ganglia Gasseri of another paretic, who had shown no tabetic symptoms, Arndt frequently found fibres deprived of the medullary sheath, the axis-cylinder of which exhibited a peculiar degeneration. The changes were mostly observed in thick and broad fibres. Treated with carmine they showed a pale grayish color, interwoven with red streaks which, in eight hundred diameters, appeared as small bands, varying in number from three to five. A similar division of the axis-cylinder into its primitive

fibrillæ, has been observed by Remak, Neumann, Eichhorst and Westphal, in lead paralysis. It remains still undecided whether this degeneration is combined with a hypertrophic condition, or with that of a simple swelling. Arndt inclines to adopt the latter, since at the same time other parts of the nerves, as the medullary sheath, perished under the signs of atrophy.

IV. Nucleated nerve fibres.

In the brain and spinal cord of persons only, who died insane, Arndt recently observed nerve fibres of which the axis-cylinder was covered with oblong nuclei. He tries to explain this occurrence by referring to the development and growth of the fibres. In the normally and fully developed fibres, these nuclei disappear, and thus the author claims their presence to be the result of an arrest of development.

SUMMARY.

Dr. F. W. Mercer, Senior Assistant Physician of the Southern Hospital for the Insane, at Anna, Illinois, will, after four years service, resign his position in April next, for the purpose of engaging in private practice.

—Dr. D. R. Burrell has taken the position of Superintendent of "Brigham Hall," at Canandaigua, N. Y., vice Dr. George Cook.

—Dr. P. O. Hooper who attended the meeting of the Association of Superintendents in Philadelphia, last June, as representative of the Arkansas Insane Hospital, and subsequently visited several northern institutions, has made his report to the Board of Trustees He recommends the establishment of a State Hospital, capable of accommodating two hundred and fifty patients, and presents a plan for the building. The pe-

culiarities of the plan are not given in the synopsis before us, but it has been prepared after an intelligent examination of some of the best arranged institutions. The site is described as an eligible one, but seems to have one almost vital defect, the water supply can be obtained only from wells which must be dug on the premises. A full and inexhaustible supply should be assured before steps are taken for the erection of an asylum.

—We have received the first number, for December 1876, of the *Quarterly Journal of Inebriety.* The prospectus announces that it will be devoted to the study of inebriety in all its many phases, and of the opium mania; that it will be a medium for the presentation of all investigation and studies in this field, and also the official organ of the "American Association for the Cure of Inebriates," publishing all its papers and transactions, and promises to give the practitioner a full review of all the literature of the subject of inebriety. The subscription price is $3.00 per annum. All books, magazines, and exchanges should be addressed to T. D. Crothers, M. D., Secretary, Binghamton, N. Y.

—We see by the Proceedings of the Association, published in this number of the JOURNAL, that Dr. T. D. Crothers is the Assistant Physician in the New York State Inebriate Asylum, at Binghamton, N. Y.